

Single-step with SNP solutions and reduced genotype data

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This report documents the results of running single-step with and without outputting SNP solutions. Furthermore, it documents the effect of reducing the historic number genotyped animals.

Introduction

Monthly and weekly evaluations are based on SNP solutions. Therefore, to be able to use single-step evaluation in the future, the SNP solutions from the single-step model is needed to be outputted.

The difference between the single-step program with and without SNP solutions are that there are no genetic grouping in the genomic part in the single-step where SNP solutions are outputted.

Aim of this study is to test if the single-step with SNP solutions is making similar GEBVs as the single-step without SNP solutions.

Furthermore, singlestep with SNP solutions is run, where genotypes for animals born before 2005 or 2010 are deleted, but the phenotypes are kept.

In the reduced runs phenotypic records for progeny of genomic tested bulls born after 2013 are set to missing. It is done to mimic how the program predict GEBVs before phenotypic are available.

Explanations:

p_index	the official production index
twostep	the current twostep genomic index
p_ss	single-step full - without SNP solutions
p_ss_snp	single-step full - with SNP solutions
p_ss_snp2005	single-step full - with SNP solutions – genotypes for animals born before 2005 are deleted.
p_ss_snp2010	single-step full - with SNP solutions – genotypes for animals born before 2010 are deleted.
p_ss_red	single-step reduced - without SNP solutions
p_ss_red_snp	single-step reduced - with SNP solutions
p_ss_red_snp2005	single-step reduced - with SNP solutions – genotypes for animals born before 2005 are deleted.
p_ss_red_snp2010	single-step reduced - with SNP solutions – genotypes for animals born before 2010 are deleted.

Results

For some traits the single-step GEBVs are having bigger bias than the current two-step model and the official EBVs. These problems seem to be reduced when the single-step SNP solutions are used instead.

Here the results from the old 305 days animal model is presented.

For Nordic AI bulls born in 2005 and 2016 the statistic for GEBV is shown in table 1. These bulls have at least 50 daughters in Denmark.

For bulls born in 2005 the singlestep run with and without SNP solutions and with and without reducing genotypes have the same mean GEBV level for production. For bulls born in 2016 the single-step reduced is

much higher than the single-step full. However, the difference is smaller when historic genotypes are deleted. Furthermore, the standard deviation is reduced when historic genotypes are deleted. The correlation to the official p-index is slightly higher for single-step with SNP solutions than without, and also higher when historic genotypes are deleted. The results indicate that deleting genotypic before 2010 diminish the bias very much. Compared to the original single step program the bias is reduced by 10 units. For candidate bulls born in 2020 the results are the same. The single-step with SNP solutions and with historic genotypes deleted are closer to the level for the current twostep values than the single-step without SNP solutions. The difference between reduced and full is also smallest for single-step run with SNP solutions and with historic genotypes deleted.

Table 1

	2005			2016			2020	
	mean	SD	Corr to p_idx	mean	SD	Corr to p_idx	mean	SD
p_index	93.8	8.1	1.000	104.1	9.7	1.000	-	-
Twostep	93.5	8.3	0.980	104.0	10.0	0.989	116.1	7.2
p_ss	94.7	8.5	0.955	106.6	10.8	0.931	122.4	9.3
p_ss_snp	94.6	8.3	0.956	106.6	10.6	0.931	120.7	8.5
p_ss_snp2005	94.9	8.3	0.957	104.7	10.5	0.937	117.3	8.3
p_ss_snp2010	94.3	8.1	0.965	103.2	10.3	0.940	115.1	7.9
p_ss_red	94.9	8.5	0.956	118.7	8.6	0.708	128.7	8.2
p_ss_red_snp	94.8	8.3	0.958	117.0	7.4	0.726	125.6	6.9
p_ss_red_snp2005	95.0	8.2	0.959	111.2	7.2	0.748	119.0	6.5
p_ss_red_snp2010	94.3	8.1	0.964	108.4	6.9	0.761	115.7	6.1

Mean and SD of GEBV for genotyped females are shown in table 2. The tendency is the same as for the bulls.

Table 2

	2010			2016			2020	
	mean	SD	Corr to p_idx	mean	SD	Corr to p_idx	mean	SD
p_index	99.6	8.4	1.000	102.3	8.9	1.000	112.5	0.7
Twostep	96.8	8.2	0.795	100.3	8.5	0.796	105.9	7.2
p_ss	100.1	10.5	0.802	106.4	10.3	0.790	114.4	9.8
p_ss_snp	99.7	9.5	0.815	105.5	9.4	0.813	112.9	8.6
p_ss_snp2005	99.4	9.6	0.818	103.5	9.4	0.821	109.3	8.5
p_ss_snp2010	99.0	9.3	0.820	102.3	9.2	0.823	107.5	8.3
p_ss_red	100.5	10.3	0.809	110.8	9.1	0.634	121.6	8.6
p_ss_red_snp	99.9	9.2	0.823	109.0	7.9	0.664	119.0	7.3
p_ss_red_snp2005	99.6	9.1	0.833	105.2	7.7	0.682	112.5	7.0
p_ss_red_snp2010	99.2	8.8	0.838	103.4	7.4	0.679	109.7	6.7

Discussion

Minna Koivula have studied the same problem for milk production with the current test day model and also found that the single-step run with SNP solutions had lower inflation bias than the single-step run without SNP solutions. Furthermore, it confirms that the bias is reduced when historic genotypes are deleted. Similar results are found for Type traits.

Appendix 1

Statistics for bulls

p-indeks = trad TD gebvredprot = twostep p_ss = without snp sol p_ss_snp = with snp sol 2005= ref birth > 2004

1

VG bulls with daughters DNK > 49 by birth year

16:42 Tuesday, November 30, 2021

----- aar=2001 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	305	86.9344262	8.4504532	62.0000000	109.0000000
GEBVredprot	173	85.7515859	8.9483771	64.6765322	110.6068922
p_ss	305	87.2720231	8.9082135	58.0537766	112.4497705
p_ss_snp	305	87.3108979	8.7934958	58.1147012	112.1234073
p_ss_snp2005	305	87.3524441	8.7483439	57.9154721	110.6192445
p_ss_snp2010	305	86.8946861	8.5518316	58.0166675	109.7227440
p_ss_red	305	87.2839820	8.8759149	58.3958313	112.5825166
p_ss_red_snp	305	87.3146708	8.7385572	58.3556215	112.0394389
p_ss_red_snp2005	305	87.3514802	8.7511421	58.0020597	110.6672113
p_ss_red_snp2010	305	86.8082028	8.5684481	57.9318335	109.6996871

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Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	269	84.7657993	8.6041133	55.0000000	110.0000000
GEBVredprot	216	84.5939874	8.7263368	53.5644872	110.4167522
p_ss	269	85.5844064	9.1029196	55.9216959	111.4860354
p_ss_snp	269	85.5867057	8.9405366	56.4272469	111.0388117
p_ss_snp2005	269	85.6993049	8.8661413	57.5308875	111.4201427
p_ss_snp2010	269	85.2716593	8.6699600	57.3225574	110.3837417
p_ss_red	269	85.6230952	9.0106151	56.2034243	111.2767842
p_ss_red_snp	269	85.6093730	8.8319622	56.8069245	110.7408659
p_ss_red_snp2005	269	85.7092096	8.8662715	57.4968134	111.3176360
p_ss_red_snp2010	269	85.1905448	8.6829559	57.1889650	110.2358939

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Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	242	87.1074380	8.4865543	61.0000000	108.0000000
GEBVredprot	200	87.3746198	8.3532377	63.1854432	108.2332822
p_ss	242	88.6125356	8.9040021	60.6780575	109.4546015
p_ss_snp	242	88.5274596	8.7883935	61.5316891	109.3844196
p_ss_snp2005	242	88.6909604	8.7040107	61.7221055	109.4556392
p_ss_snp2010	242	88.1996912	8.5007685	61.8323361	108.4063715

p_ss_red	242	88.6469262	8.8483441	61.3400062	109.7913463
p_ss_red_snp	242	88.5401706	8.7175280	62.1458437	109.7108308
p_ss_red_snp2005	242	88.7242399	8.7186037	61.6988001	109.7775940
p_ss_red_snp2010	242	88.1440061	8.5294708	61.6916002	108.6541778

 aar=2004

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	233	90.8283262	7.8606213	70.0000000	113.0000000
GEBVredprot	224	90.8482342	7.9738108	70.5943422	112.8474422
p_ss	233	91.9622784	8.4685883	71.4849665	114.5239378
p_ss_snp	233	91.9038151	8.3285702	71.2911953	114.2682975
p_ss_snp2005	233	92.0757696	8.2616416	71.2581677	114.7593509
p_ss_snp2010	233	91.5007239	8.0702859	71.1605880	113.9986119
p_ss_red	233	92.0241168	8.4234738	71.5918220	114.7536393
p_ss_red_snp	233	91.9437978	8.2763777	71.3495365	114.4658717
p_ss_red_snp2005	233	92.1309235	8.2827601	71.2560782	114.8063940
p_ss_red_snp2010	233	91.4652011	8.1077561	71.0327349	114.1388785

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The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	229	93.7729258	8.1413478	65.0000000	118.0000000
GEBVredprot	224	93.4807424	8.2796456	67.1381522	118.4052222
p_ss	229	94.7129541	8.5220319	67.6153562	119.1423405
p_ss_snp	229	94.6466305	8.3340782	68.2677570	119.0946202
p_ss_snp2005	229	94.8910939	8.3247839	68.5521297	119.2320988
p_ss_snp2010	229	94.3317892	8.0851275	66.2842618	117.9214896
p_ss_red	229	94.8876144	8.4627295	67.6662130	119.4820603
p_ss_red_snp	229	94.7674220	8.2595560	68.3733042	119.4389399
p_ss_red_snp2005	229	94.9884511	8.2320434	68.4995437	119.5429185
p_ss_red_snp2010	229	94.3301089	8.1039686	65.7471878	118.1294581

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Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	268	93.2052239	8.2079054	69.0000000	118.0000000
GEBVredprot	264	93.0072744	8.3884230	67.6457122	117.3231122
p_ss	268	94.1282189	8.8941243	69.2641023	118.7124546
p_ss_snp	268	94.0863180	8.7456807	69.6942305	118.3969233
p_ss_snp2005	268	94.3238101	8.7267975	70.2186633	118.6723656
p_ss_snp2010	268	93.7144462	8.3852765	69.2193290	117.3335890
p_ss_red	268	94.2786689	8.8570327	68.6181423	118.8142187
p_ss_red_snp	268	94.1901814	8.6773694	69.2410656	118.8935520
p_ss_red_snp2005	268	94.4193286	8.6394471	69.9907879	119.1093021
p_ss_red_snp2010	268	93.7120982	8.4095481	69.1292948	117.6714612

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Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	201	93.2786070	8.0642414	70.0000000	114.0000000
GEBVredprot	201	93.3624790	8.2443391	67.8940592	113.7743922
p_ss	201	94.5438261	8.9895683	65.9768788	116.2154174
p_ss_snp	201	94.4732944	8.8016968	66.9514058	115.9098995
p_ss_snp2005	201	94.7060524	8.7806694	66.7003404	116.5031597
p_ss_snp2010	201	94.0102973	8.6243541	66.3565467	114.2622613
p_ss_red	201	94.6531429	8.9661203	67.3424245	115.5234416
p_ss_red_snp	201	94.5508739	8.7502078	68.1986266	115.3149633

p_ss_red_snp2005	201	94.7452994	8.7142497	67.9081497	115.9588673
p_ss_red_snp2010	201	94.0264827	8.6564266	66.8236683	114.5149115

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Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	165	96.1818182	7.7666208	72.0000000	113.0000000
GEBVredprot	164	96.4105392	7.9991819	70.7108322	113.6132122
p_ss	165	97.3994947	8.4635039	71.5940325	114.3294049
p_ss_snp	165	97.3308196	8.3558851	71.6198994	114.0521458
p_ss_snp2005	165	97.4948381	8.3903297	71.7795192	114.2399185
p_ss_snp2010	165	96.6749781	8.0518366	71.8753152	112.9121516
p_ss_red	165	97.6625157	8.4524061	71.8479979	115.1277071
p_ss_red_snp	165	97.5687354	8.3252119	71.8744644	114.6896534
p_ss_red_snp2005	165	97.6722832	8.3451399	71.9563880	114.8997686
p_ss_red_snp2010	165	96.7588324	8.1033620	71.6790612	113.5100712

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The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	147	97.8163265	8.5856047	71.0000000	122.0000000
GEBVredprot	147	98.1319718	8.4736417	72.2537022	121.1546522
p_ss	147	99.0161786	9.3180681	70.6577233	126.5498985
p_ss_snp	147	98.9513032	9.2154725	70.9285976	125.7825336
p_ss_snp2005	147	99.1824977	9.1855041	70.7157063	125.8388694
p_ss_snp2010	147	98.2157301	8.9630007	69.5901249	124.3421638
p_ss_red	147	99.2912205	9.2746924	71.7919196	127.5968465
p_ss_red_snp	147	99.1998903	9.1602054	71.9658952	126.6172167
p_ss_red_snp2005	147	99.3429628	9.1281795	71.6532402	126.5498538
p_ss_red_snp2010	147	98.2717483	9.0082114	70.3056961	125.2809672

----- aar=2010 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	134	98.5970149	6.5501184	81.0000000	115.0000000
GEBVredprot	134	98.8037916	6.6777287	78.6077822	114.3089622
p_ss	134	99.1655194	7.1744789	75.9005447	115.6745522
p_ss_snp	134	99.1316969	7.0136928	76.8746885	115.5492203
p_ss_snp2005	134	99.1181861	7.0190135	77.2751395	115.5839179
p_ss_snp2010	134	98.4159777	6.8689763	77.0758302	114.3922117
p_ss_red	134	99.5790592	7.1130103	76.3310764	116.5793706
p_ss_red_snp	134	99.5265887	6.9269956	77.4670882	116.2733883
p_ss_red_snp2005	134	99.4079212	6.9282227	77.7552090	116.2274793
p_ss_red_snp2010	134	98.5676092	6.7884138	77.3308181	114.8809336

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Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	108	100.1944444	8.4094499	82.0000000	125.0000000
GEBVredprot	108	100.2842581	8.5977568	81.5424422	124.7853022
p_ss	108	101.0354900	8.8864427	81.5573066	126.6455705
p_ss_snp	108	100.9021460	8.7783764	81.7355443	126.6471405
p_ss_snp2005	108	100.5554137	8.7906316	81.3531955	126.0621230
p_ss_snp2010	108	99.7235919	8.5870439	80.9318584	124.5708266
p_ss_red	108	101.5266875	8.9324232	81.2685165	127.8581204
p_ss_red_snp	108	101.3328592	8.7874743	81.4350570	127.7955871

p_ss_red_snp2005	108	100.8675168	8.7908935	80.7809310	127.2015577
p_ss_red_snp2010	108	99.9250716	8.5878164	80.3009156	125.6519948

----- aar=2012 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	121	101.5537190	9.3264413	74.0000000	125.0000000
GEBVredprot	121	101.8757350	9.6208511	73.0662022	125.3988322
p_ss	121	102.9966202	10.0419241	74.1235982	126.2820172
p_ss_snp	121	102.8930130	9.9319629	74.3544106	125.9181081
p_ss_snp2005	121	102.2702723	9.9667707	73.4203370	125.8868465
p_ss_snp2010	121	101.3677048	9.7548963	73.0592383	124.8907045
p_ss_red	121	103.7424991	9.9077341	75.8588715	127.4630233
p_ss_red_snp	121	103.6185741	9.7670039	76.1621213	126.1869165
p_ss_red_snp2005	121	102.8983684	9.8052092	75.1842086	124.9771947
p_ss_red_snp2010	121	101.8891210	9.6146562	74.7004643	124.1441088

----- aar=2013 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	100	101.4100000	7.4807430	78.0000000	118.0000000
GEBVredprot	100	101.4933707	7.4971332	78.4898522	117.4261622
p_ss	100	104.2758676	7.7147423	80.8914300	121.1858927
p_ss_snp	100	104.1096780	7.6703144	80.4802016	120.7074446
p_ss_snp2005	100	103.2002531	7.7041692	79.3567072	119.6945983
p_ss_snp2010	100	102.1450989	7.5436687	78.8107930	118.1720190
p_ss_red	100	108.2833241	7.9922877	86.4837992	125.6640566
p_ss_red_snp	100	107.4713388	7.4956505	88.5091154	123.8455208
p_ss_red_snp2005	100	104.9398667	7.1869977	84.5600458	122.4535212
p_ss_red_snp2010	100	103.3777030	6.9226919	83.6870894	120.2936812

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Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	84	103.8095238	8.9637505	82.0000000	130.0000000
GEBVredprot	84	103.9073144	9.0373336	82.0161322	129.5358622
p_ss	84	107.4658176	9.3431466	86.5220416	130.2811035
p_ss_snp	84	107.3235859	9.2865546	86.5049513	130.3082903
p_ss_snp2005	84	106.0364843	9.3041243	85.3672820	129.2708334
p_ss_snp2010	84	104.7970646	9.0927936	84.6391933	127.5484400
p_ss_red	84	114.6970755	8.7324992	96.3115228	131.7198767
p_ss_red_snp	84	113.2179235	8.0515352	96.1707606	129.3563044
p_ss_red_snp2005	84	109.0880120	7.9491447	90.2802018	126.4571187
p_ss_red_snp2010	84	106.9295834	7.5867755	87.3911082	124.1121992

----- aar=2015 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	64	103.8437500	8.6174772	83.0000000	124.0000000
GEBVredprot	64	103.4835080	9.0976223	81.8904122	122.8524922
p_ss	64	106.4784872	10.4106346	85.2655503	132.4113984
p_ss_snp	64	106.4089260	10.3202394	85.2157150	131.3506788
p_ss_snp2005	64	104.8997310	10.3420424	83.7456550	130.1792004
p_ss_snp2010	64	103.6386991	10.1077936	82.9442152	128.3231443
p_ss_red	64	116.2955240	9.2313881	91.4543766	134.0713421
p_ss_red_snp	64	114.8890788	8.1230604	94.6119614	129.0430101

p_ss_red_snp2005	64	110.1101113	7.6960987	92.7750954	123.6955318
p_ss_red_snp2010	64	107.8357899	7.4248040	90.0471148	121.5344023

----- aar=2016 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	56	104.1071429	9.6722256	84.0000000	123.0000000
GEBVredprot	56	104.0137356	10.0125986	83.9718322	127.6663222
p_ss	56	106.6269609	10.7548576	81.0215438	133.1959081
p_ss_snp	56	106.6370042	10.5893052	81.5481702	131.9326258
p_ss_snp2005	56	104.6757235	10.5206158	79.9778511	129.3220090
p_ss_snp2010	56	103.2311482	10.2636568	79.6129868	127.1860783
p_ss_red	56	118.7312847	8.5736411	96.1362781	135.8620245
p_ss_red_snp	56	116.9524400	7.4426735	97.9341602	131.2872206
p_ss_red_snp2005	56	111.1644176	7.2410368	94.8018367	127.2303375
p_ss_red_snp2010	56	108.4046437	6.8811595	96.1080657	125.3366526

----- aar=2017 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	26	107.7307692	10.5320755	81.0000000	127.0000000
GEBVredprot	26	108.2011674	10.1633060	83.3343822	126.9246522
p_ss	26	110.3652265	11.2558367	85.2936141	130.6000100
p_ss_snp	26	110.3587749	10.7827794	86.5593090	129.7966886
p_ss_snp2005	26	108.1449040	10.7088151	84.6988007	127.5180689
p_ss_snp2010	26	106.5535450	10.4014503	84.1118945	125.4836032
p_ss_red	26	120.7520576	9.7789471	103.4493994	138.4620188
p_ss_red_snp	26	119.2744727	8.5019264	104.4334195	134.1132635
p_ss_red_snp2005	26	113.4932947	8.7246358	98.0398902	128.9705594
p_ss_red_snp2010	26	110.5283747	8.3306501	96.5529234	126.3227225

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The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	305	86.93443	8.45045	26515	62.00000	109.00000
GEBVredprot	173	85.75159	8.94838	14835	64.67653	110.60689
p_ss	305	87.27202	8.90821	26618	58.05378	112.44977
p_ss_snp	305	87.31090	8.79350	26630	58.11470	112.12341
p_ss_snp2005	305	87.35244	8.74834	26642	57.91547	110.61924
p_ss_snp2010	305	86.89469	8.55183	26503	58.01667	109.72274
p_ss_red	305	87.28398	8.87591	26622	58.39583	112.58252
p_ss_red_snp	305	87.31467	8.73856	26631	58.35562	112.03944
p_ss_red_snp2005	305	87.35148	8.75114	26642	58.00206	110.66721
p_ss_red_snp2010	305	86.80820	8.56845	26477	57.93183	109.69969

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.98021	0.96002	0.96066	0.96457	0.96461	0.96041	0.96100	0.96464	0.96470
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	305	173	305	305	305	305	305	305	305	305
GEBVredprot	0.98021	1.00000	0.96010	0.96064	0.94967	0.94982	0.95691	0.95798	0.94971	0.94988
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	173	173	173	173	173	173	173	173	173	173
p_ss	0.96002	0.96010	1.00000	0.99954	0.99416	0.99412	0.99893	0.99842	0.99416	0.99412
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	305	173	305	305	305	305	305	305	305	305
p_ss_snp	0.96066	0.96064	0.99954	1.00000	0.99445	0.99443	0.99872	0.99916	0.99446	0.99443
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	305	173	305	305	305	305	305	305	305	305
p_ss_snp2005	0.96457	0.94967	0.99416	0.99445	1.00000	0.99998	0.99555	0.99568	0.99997	0.99996

----- aar=2002 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	269	84.76580	8.60411	22802	55.00000	110.00000
GEBVredprot	216	84.59399	8.72634	18272	53.56449	110.41675
p_ss	269	85.58441	9.10292	23022	55.92170	111.48604
p_ss_snp	269	85.58671	8.94054	23023	56.42725	111.03881
p_ss_snp2005	269	85.69930	8.86614	23053	57.53089	111.42014
p_ss_snp2010	269	85.27166	8.66996	22938	57.32256	110.38374
p_ss_red	269	85.62310	9.01062	23033	56.20342	111.27678
p_ss_red_snp	269	85.60937	8.83196	23029	56.80692	110.74087
p_ss_red_snp2005	269	85.70921	8.86627	23056	57.49681	111.31764
p_ss_red_snp2010	269	85.19054	8.68296	22916	57.18896	110.23589

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.97887	0.96169	0.96228	0.96928	0.96939	0.96412	0.96473	0.96946	0.96958
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	269	216	269	269	269	269	269	269	269	269
GEBVredprot	0.97887	1.00000	0.97099	0.97078	0.95872	0.95894	0.96967	0.96955	0.95881	0.95900
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	216	216	216	216	216	216	216	216	216	216
p_ss	0.96169	0.97099	1.00000	0.99945	0.99281	0.99286	0.99874	0.99803	0.99282	0.99288
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	269	216	269	269	269	269	269	269	269	269
p_ss_snp	0.96228	0.97078	0.99945	1.00000	0.99342	0.99346	0.99872	0.99902	0.99342	0.99348
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	269	216	269	269	269	269	269	269	269	269
p_ss_snp2005	0.96928	0.95872	0.99281	0.99342	1.00000	0.99998	0.99456	0.99490	0.99996	0.99995

----- aar=2003 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	242	87.10744	8.48655	21080	61.00000	108.00000
GEBVredprot	200	87.37462	8.35324	17475	63.18544	108.23328
p_ss	242	88.61254	8.90400	21444	60.67806	109.45460
p_ss_snp	242	88.52746	8.78839	21424	61.53169	109.38442
p_ss_snp2005	242	88.69096	8.70401	21463	61.72211	109.45564
p_ss_snp2010	242	88.19969	8.50077	21344	61.83234	108.40637
p_ss_red	242	88.64693	8.84834	21453	61.34001	109.79135
p_ss_red_snp	242	88.54017	8.71753	21427	62.14584	109.71083
p_ss_red_snp2005	242	88.72424	8.71860	21471	61.69880	109.77759
p_ss_red_snp2010	242	88.14401	8.52947	21331	61.69160	108.65418

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.98198	0.96029	0.96144	0.96880	0.96900	0.96302	0.96439	0.96894	0.96905
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	242	200	242	242	242	242	242	242	242	242
GEBVredprot	0.98198	1.00000	0.96638	0.96744	0.96068	0.96090	0.96667	0.96816	0.96067	0.96085
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	200	200	200	200	200	200	200	200	200	200
p_ss	0.96029	0.96638	1.00000	0.99968	0.99398	0.99398	0.99912	0.99866	0.99380	0.99382
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	242	200	242	242	242	242	242	242	242	242
p_ss_snp	0.96144	0.96744	0.99968	1.00000	0.99421	0.99422	0.99906	0.99926	0.99404	0.99408
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	242	200	242	242	242	242	242	242	242	242
p_ss_snp2005	0.96880	0.96068	0.99398	0.99421	1.00000	0.99996	0.99490	0.99523	0.99992	0.99987

----- aar=2004 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	233	90.82833	7.86062	21163	70.00000	113.00000
GEBVredprot	224	90.84823	7.97381	20350	70.59434	112.84744
p_ss	233	91.96228	8.46859	21427	71.48497	114.52394
p_ss_snp	233	91.90382	8.32857	21414	71.29120	114.26830
p_ss_snp2005	233	92.07577	8.26164	21454	71.25817	114.75935
p_ss_snp2010	233	91.50072	8.07029	21320	71.16059	113.99861
p_ss_red	233	92.02412	8.42347	21442	71.59182	114.75364
p_ss_red_snp	233	91.94380	8.27638	21423	71.34954	114.46587
p_ss_red_snp2005	233	92.13092	8.28276	21467	71.25608	114.80639
p_ss_red_snp2010	233	91.46520	8.10776	21311	71.03273	114.13888

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.98105	0.95938	0.96037	0.96789	0.96747	0.96206	0.96300	0.96812	0.96774
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	233	224	233	233	233	233	233	233	233	233
GEBVredprot	0.98105	1.00000	0.96310	0.96352	0.95578	0.95527	0.96334	0.96372	0.95593	0.95548
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	224	224	224	224	224	224	224	224	224	224
p_ss	0.95938	0.96310	1.00000	0.99943	0.99264	0.99263	0.99864	0.99779	0.99238	0.99244
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	233	224	233	233	233	233	233	233	233	233
p_ss_snp	0.96037	0.96352	0.99943	1.00000	0.99347	0.99339	0.99867	0.99886	0.99327	0.99327
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	233	224	233	233	233	233	233	233	233	233
p_ss_snp2005	0.96789	0.95578	0.99264	0.99347	1.00000	0.99990	0.99421	0.99469	0.99985	0.99980

----- aar=2005 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	229	93.77293	8.14135	21474	65.00000	118.00000
GEBVredprot	224	93.48074	8.27965	20940	67.13815	118.40522
p_ss	229	94.71295	8.52203	21689	67.61536	119.14234
p_ss_snp	229	94.64663	8.33408	21674	68.26776	119.09462
p_ss_snp2005	229	94.89109	8.32478	21730	68.55213	119.23210
p_ss_snp2010	229	94.33179	8.08513	21602	66.28426	117.92149
p_ss_red	229	94.88761	8.46273	21729	67.66621	119.48206
p_ss_red_snp	229	94.76742	8.25956	21702	68.37330	119.43894
p_ss_red_snp2005	229	94.98845	8.23204	21752	68.49954	119.54292
p_ss_red_snp2010	229	94.33011	8.10397	21602	65.74719	118.12946

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.98037	0.95500	0.95645	0.95669	0.96459	0.95619	0.95829	0.95926	0.96442
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	229	224	229	229	229	229	229	229	229	229
GEBVredprot	0.98037	1.00000	0.95653	0.95668	0.95547	0.94432	0.95376	0.95428	0.95300	0.94369
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	224	224	224	224	224	224	224	224	224	224
p_ss	0.95500	0.95653	1.00000	0.99941	0.99815	0.99072	0.99824	0.99763	0.99619	0.98991
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	229	224	229	229	229	229	229	229	229	229
p_ss_snp	0.95645	0.95668	0.99941	1.00000	0.99909	0.99148	0.99803	0.99854	0.99747	0.99063
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	229	224	229	229	229	229	229	229	229	229
p_ss_snp2005	0.95669	0.95547	0.99815	0.99909	1.00000	0.99160	0.99663	0.99750	0.99827	0.99084

----- aar=2006 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	268	93.20522	8.20791	24979	69.00000	118.00000
GEBVredprot	264	93.00727	8.38842	24554	67.64571	117.32311
p_ss	268	94.12822	8.89412	25226	69.26410	118.71245
p_ss_snp	268	94.08632	8.74568	25215	69.69423	118.39692
p_ss_snp2005	268	94.32381	8.72680	25279	70.21866	118.67237
p_ss_snp2010	268	93.71445	8.38528	25115	69.21933	117.33359
p_ss_red	268	94.27867	8.85703	25267	68.61814	118.81422
p_ss_red_snp	268	94.19018	8.67737	25243	69.24107	118.89355
p_ss_red_snp2005	268	94.41933	8.63945	25304	69.99079	119.10930
p_ss_red_snp2010	268	93.71210	8.40955	25115	69.12929	117.67146

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.98180	0.95540	0.95741	0.95668	0.96418	0.95757	0.95951	0.95943	0.96367
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	268	264	268	268	268	268	268	268	268	268
GEBVredprot	0.98180	1.00000	0.95883	0.95937	0.95733	0.95038	0.95738	0.95787	0.95589	0.94965
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	264	264	264	264	264	264	264	264	264	264
p_ss	0.95540	0.95883	1.00000	0.99937	0.99850	0.99199	0.99839	0.99755	0.99664	0.99163
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	268	264	268	268	268	268	268	268	268	268
p_ss_snp	0.95741	0.95937	0.99937	1.00000	0.99921	0.99279	0.99830	0.99860	0.99775	0.99238
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	268	264	268	268	268	268	268	268	268	268
p_ss_snp2005	0.95668	0.95733	0.99850	0.99921	1.00000	0.99307	0.99719	0.99756	0.99840	0.99260

----- aar=2007 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	201	93.27861	8.06424	18749	70.00000	114.00000
GEBVredprot	201	93.36248	8.24434	18766	67.89406	113.77439
p_ss	201	94.54383	8.98957	19003	65.97688	116.21542
p_ss_snp	201	94.47329	8.80170	18989	66.95141	115.90990
p_ss_snp2005	201	94.70605	8.78067	19036	66.70034	116.50316
p_ss_snp2010	201	94.01030	8.62435	18896	66.35655	114.26226
p_ss_red	201	94.65314	8.96612	19025	67.34242	115.52344
p_ss_red_snp	201	94.55087	8.75021	19005	68.19863	115.31496
p_ss_red_snp2005	201	94.74530	8.71425	19044	67.90815	115.95887
p_ss_red_snp2010	201	94.02648	8.65643	18899	66.82367	114.51491

Pearson Correlation Coefficients, N = 201

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.98417	0.96081	0.96192	0.96253	0.96662	0.96071	0.96185	0.96263	0.96604
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.98417	1.00000	0.95976	0.96052	0.96055	0.95289	0.95642	0.95751	0.95732	0.95157
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.96081	0.95976	1.00000	0.99941	0.99861	0.99385	0.99856	0.99792	0.99745	0.99302
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.96192	0.96052	0.99941	1.00000	0.99923	0.99401	0.99827	0.99881	0.99832	0.99318
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.96253	0.96055	0.99861	0.99923	1.00000	0.99428	0.99706	0.99760	0.99873	0.99334
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.96662	0.95289	0.99385	0.99401	0.99428	1.00000	0.99474	0.99468	0.99543	0.99952
							<.0001	<.0001	<.0001	<.0001

----- aar=2008 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	165	96.18182	7.76662	15870	72.00000	113.00000
GEBVredprot	164	96.41054	7.99918	15811	70.71083	113.61321
p_ss	165	97.39949	8.46350	16071	71.59403	114.32940
p_ss_snp	165	97.33082	8.35589	16060	71.61990	114.05215
p_ss_snp2005	165	97.49484	8.39033	16087	71.77952	114.23992
p_ss_snp2010	165	96.67498	8.05184	15951	71.87532	112.91215
p_ss_red	165	97.66252	8.45241	16114	71.84800	115.12771
p_ss_red_snp	165	97.56874	8.32521	16099	71.87446	114.68965
p_ss_red_snp2005	165	97.67228	8.34514	16116	71.95639	114.89977
p_ss_red_snp2010	165	96.75883	8.10336	15965	71.67906	113.51007

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.98416	0.95672	0.95759	0.95641	0.96311	0.95832	0.95918	0.95820	0.96292
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	165	164	165	165	165	165	165	165	165	165
GEBVredprot	0.98416	1.00000	0.96384	0.96390	0.96218	0.95677	0.96310	0.96309	0.96160	0.95682
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	164	164	164	164	164	164	164	164	164	164
p_ss	0.95672	0.96384	1.00000	0.99958	0.99903	0.99466	0.99812	0.99754	0.99705	0.99387
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	165	164	165	165	165	165	165	165	165	165
p_ss_snp	0.95759	0.96390	0.99958	1.00000	0.99944	0.99535	0.99810	0.99835	0.99782	0.99463
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	165	164	165	165	165	165	165	165	165	165
p_ss_snp2005	0.95641	0.96218	0.99903	0.99944	1.00000	0.99556	0.99735	0.99759	0.99821	0.99476

----- aar=2009 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	147	97.81633	8.58560	14379	71.00000	122.00000
GEBVredprot	147	98.13197	8.47364	14425	72.25370	121.15465
p_ss	147	99.01618	9.31807	14555	70.65772	126.54990
p_ss_snp	147	98.95130	9.21547	14546	70.92860	125.78253
p_ss_snp2005	147	99.18250	9.18550	14580	70.71571	125.83887
p_ss_snp2010	147	98.21573	8.96300	14438	69.59012	124.34216
p_ss_red	147	99.29122	9.27469	14596	71.79192	127.59685
p_ss_red_snp	147	99.19989	9.16021	14582	71.96590	126.61722
p_ss_red_snp2005	147	99.34296	9.12818	14603	71.65324	126.54985
p_ss_red_snp2010	147	98.27175	9.00821	14446	70.30570	125.28097

Pearson Correlation Coefficients, N = 147

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.98514	0.96455	0.96534	0.96577	0.97246	0.96569	0.96620	0.96686	0.97217
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.98514	1.00000	0.97401	0.97407	0.97344	0.96892	0.97430	0.97436	0.97384	0.96989
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.96455	0.97401	1.00000	0.99954	0.99911	0.99480	0.99817	0.99759	0.99709	0.99405
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.96534	0.97407	0.99954	1.00000	0.99960	0.99544	0.99800	0.99834	0.99786	0.99481
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.96577	0.97344	0.99911	0.99960	1.00000	0.99601	0.99754	0.99792	0.99825	0.99536
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.97246	0.96892	0.99480	0.99544	0.99601	1.00000	0.99430	0.99476	0.99541	0.99880
							<.0001	<.0001	<.0001	<.0001

----- aar=2010 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	134	98.59701	6.55012	13212	81.00000	115.00000
GEBVredprot	134	98.80379	6.67773	13240	78.60778	114.30896
p_ss	134	99.16552	7.17448	13288	75.90054	115.67455
p_ss_snp	134	99.13170	7.01369	13284	76.87469	115.54922
p_ss_snp2005	134	99.11819	7.01901	13282	77.27514	115.58392
p_ss_snp2010	134	98.41598	6.86898	13188	77.07583	114.39221
p_ss_red	134	99.57906	7.11301	13344	76.33108	116.57937
p_ss_red_snp	134	99.52659	6.92700	13337	77.46709	116.27339
p_ss_red_snp2005	134	99.40792	6.92822	13321	77.75521	116.22748
p_ss_red_snp2010	134	98.56761	6.78841	13208	77.33082	114.88093

Pearson Correlation Coefficients, N = 134

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.97559	0.93093	0.93191	0.93416	0.93390	0.93162	0.93297	0.93463	0.93487
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.97559	1.00000	0.93461	0.93440	0.93493	0.93372	0.93017	0.93019	0.92961	0.92903
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.93093	0.93461	1.00000	0.99933	0.99765	0.99694	0.99610	0.99574	0.99334	0.99267
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.93191	0.93440	0.99933	1.00000	0.99887	0.99821	0.99555	0.99652	0.99472	0.99398
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.93416	0.93493	0.99765	0.99887	1.00000	0.99957	0.99387	0.99548	0.99613	0.99567
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.93390	0.93372	0.99694	0.99821	0.99957	1.00000	0.99290	0.99466	0.99548	0.99598
							<.0001	<.0001	<.0001	<.0001

----- aar=2011 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	108	100.19444	8.40945	10821	82.00000	125.00000
GEBVredprot	108	100.28426	8.59776	10831	81.54244	124.78530
p_ss	108	101.03549	8.88644	10912	81.55731	126.64557
p_ss_snp	108	100.90215	8.77838	10897	81.73554	126.64714
p_ss_snp2005	108	100.55541	8.79063	10860	81.35320	126.06212
p_ss_snp2010	108	99.72359	8.58704	10770	80.93186	124.57083
p_ss_red	108	101.52669	8.93242	10965	81.26852	127.85812
p_ss_red_snp	108	101.33286	8.78747	10944	81.43506	127.79559
p_ss_red_snp2005	108	100.86752	8.79089	10894	80.78093	127.20156
p_ss_red_snp2010	108	99.92507	8.58782	10792	80.30092	125.65199

Pearson Correlation Coefficients, N = 108

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.98997	0.97228	0.97316	0.97378	0.97367	0.97033	0.97122	0.97248	0.97265
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.98997	1.00000	0.97052	0.97096	0.97094	0.97057	0.96620	0.96677	0.96715	0.96701
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.97228	0.97052	1.00000	0.99960	0.99906	0.99866	0.99577	0.99514	0.99505	0.99471
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.97316	0.97096	0.99960	1.00000	0.99960	0.99928	0.99581	0.99586	0.99589	0.99562
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.97378	0.97094	0.99906	0.99960	1.00000	0.99983	0.99476	0.99498	0.99590	0.99577
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.97367	0.97057	0.99866	0.99928	0.99983	1.00000	0.99410	0.99442	0.99552	0.99576
							<.0001	<.0001	<.0001	<.0001

----- aar=2012 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	121	101.55372	9.32644	12288	74.00000	125.00000
GEBVredprot	121	101.87574	9.62085	12327	73.06620	125.39883
p_ss	121	102.99662	10.04192	12463	74.12360	126.28202
p_ss_snp	121	102.89301	9.93196	12450	74.35441	125.91811
p_ss_snp2005	121	102.27027	9.96677	12375	73.42034	125.88685
p_ss_snp2010	121	101.36770	9.75490	12265	73.05924	124.89070
p_ss_red	121	103.74250	9.90773	12553	75.85887	127.46302
p_ss_red_snp	121	103.61857	9.76700	12538	76.16212	126.18692
p_ss_red_snp2005	121	102.89837	9.80521	12451	75.18421	124.97719
p_ss_red_snp2010	121	101.88912	9.61466	12329	74.70046	124.14411

Pearson Correlation Coefficients, N = 121

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.99068	0.96901	0.96995	0.97096	0.97218	0.96685	0.96799	0.96860	0.97011
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.99068	1.00000	0.97224	0.97226	0.97304	0.97381	0.96949	0.96954	0.96973	0.97066
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.96901	0.97224	1.00000	0.99974	0.99936	0.99905	0.99519	0.99485	0.99461	0.99458
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.96995	0.97226	0.99974	1.00000	0.99966	0.99933	0.99524	0.99544	0.99527	0.99523
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.97096	0.97304	0.99936	0.99966	1.00000	0.99981	0.99456	0.99478	0.99533	0.99540
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.97218	0.97381	0.99905	0.99933	0.99981	1.00000	0.99400	0.99426	0.99489	0.99541
							<.0001	<.0001	<.0001	<.0001

----- aar=2013 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	100	101.41000	7.48074	10141	78.00000	118.00000
GEBVredprot	100	101.49337	7.49713	10149	78.48985	117.42616
p_ss	100	104.27587	7.71474	10428	80.89143	121.18589
p_ss_snp	100	104.10968	7.67031	10411	80.48020	120.70744
p_ss_snp2005	100	103.20025	7.70417	10320	79.35671	119.69460
p_ss_snp2010	100	102.14510	7.54367	10215	78.81079	118.17202
p_ss_red	100	108.28332	7.99229	10828	86.48380	125.66406
p_ss_red_snp	100	107.47134	7.49565	10747	88.50912	123.84552
p_ss_red_snp2005	100	104.93987	7.18700	10494	84.56005	122.45352
p_ss_red_snp2010	100	103.37770	6.92269	10338	83.68709	120.29368

Pearson Correlation Coefficients, N = 100

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.98771	0.95013	0.95012	0.95050	0.94981	0.69984	0.70844	0.74512	0.74514
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.98771	1.00000	0.95099	0.95031	0.95068	0.94979	0.72747	0.73023	0.77256	0.77326
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.95013	0.95099	1.00000	0.99941	0.99861	0.99815	0.72815	0.73719	0.77462	0.77575
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.95012	0.95031	0.99941	1.00000	0.99947	0.99911	0.72954	0.74265	0.78149	0.78350
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.95050	0.95068	0.99861	0.99947	1.00000	0.99983	0.72119	0.73502	0.77952	0.78237
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.94981	0.94979	0.99815	0.99911	0.99983	1.00000	0.71816	0.73211	0.77714	0.78192
							<.0001	<.0001	<.0001	<.0001

----- aar=2014 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	84	103.80952	8.96375	8720	82.00000	130.00000
GEBVredprot	84	103.90731	9.03733	8728	82.01613	129.53586
p_ss	84	107.46582	9.34315	9027	86.52204	130.28110
p_ss_snp	84	107.32359	9.28655	9015	86.50495	130.30829
p_ss_snp2005	84	106.03648	9.30412	8907	85.36728	129.27083
p_ss_snp2010	84	104.79706	9.09279	8803	84.63919	127.54844
p_ss_red	84	114.69708	8.73250	9635	96.31152	131.71988
p_ss_red_snp	84	113.21792	8.05154	9510	96.17076	129.35630
p_ss_red_snp2005	84	109.08801	7.94914	9163	90.28020	126.45712
p_ss_red_snp2010	84	106.92958	7.58678	8982	87.39111	124.11220

Pearson Correlation Coefficients, N = 84

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.99007	0.95039	0.95069	0.95265	0.95278	0.76404	0.78642	0.79533	0.79253
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.99007	1.00000	0.95926	0.95870	0.96061	0.96110	0.78836	0.80514	0.81693	0.81827
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.95039	0.95926	1.00000	0.99977	0.99911	0.99871	0.80262	0.81185	0.81690	0.81782
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.95069	0.95870	0.99977	1.00000	0.99940	0.99897	0.80410	0.81504	0.82018	0.82081
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.95265	0.96061	0.99911	0.99940	1.00000	0.99989	0.80360	0.81635	0.82590	0.82767
	<.0001	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.95278	0.96110	0.99871	0.99897	0.99989	1.00000	0.80184	0.81488	0.82524	0.82831
	<.0001	<.0001	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001

----- aar=2015 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	64	103.84375	8.61748	6646	83.00000	124.00000
GEBVredprot	64	103.48351	9.09762	6623	81.89041	122.85249
p_ss	64	106.47849	10.41063	6815	85.26555	132.41140
p_ss_snp	64	106.40893	10.32024	6810	85.21572	131.35068
p_ss_snp2005	64	104.89973	10.34204	6714	83.74566	130.17920
p_ss_snp2010	64	103.63870	10.10779	6633	82.94422	128.32314
p_ss_red	64	116.29552	9.23139	7443	91.45438	134.07134
p_ss_red_snp	64	114.88908	8.12306	7353	94.61196	129.04301
p_ss_red_snp2005	64	110.11011	7.69610	7047	92.77510	123.69553
p_ss_red_snp2010	64	107.83579	7.42480	6901	90.04711	121.53440

Pearson Correlation Coefficients, N = 64

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.99357	0.92932	0.93094	0.93284	0.93357	0.70262	0.71099	0.72914	0.73758
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.99357	1.00000	0.93757	0.93787	0.93987	0.94055	0.72495	0.72485	0.74527	0.75458
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.92932	0.93757	1.00000	0.99972	0.99929	0.99906	0.66939	0.65020	0.67003	0.66305
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.93094	0.93787	0.99972	1.00000	0.99961	0.99944	0.66703	0.65042	0.67015	0.66380
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.93284	0.93987	0.99929	0.99961	1.00000	0.99996	0.66808	0.65261	0.67548	0.66932
	<.0001	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.93357	0.94055	0.99906	0.99944	0.99996	1.00000	0.66794	0.65293	0.67621	0.67064
	<.0001	<.0001	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001

----- aar=2016 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	56	104.10714	9.67223	5830	84.00000	123.00000
GEBVredprot	56	104.01374	10.01260	5825	83.97183	127.66632
p_ss	56	106.62696	10.75486	5971	81.02154	133.19591
p_ss_snp	56	106.63700	10.58931	5972	81.54817	131.93263
p_ss_snp2005	56	104.67572	10.52062	5862	79.97785	129.32201
p_ss_snp2010	56	103.23115	10.26366	5781	79.61299	127.18608
p_ss_red	56	118.73128	8.57364	6649	96.13628	135.86202
p_ss_red_snp	56	116.95244	7.44267	6549	97.93416	131.28722
p_ss_red_snp2005	56	111.16442	7.24104	6225	94.80184	127.23034
p_ss_red_snp2010	56	108.40464	6.88116	6071	96.10807	125.33665

Pearson Correlation Coefficients, N = 56

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.98892	0.93106	0.93125	0.93737	0.93982	0.70767	0.72647	0.74779	0.76058
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.98892	1.00000	0.94377	0.94133	0.94372	0.94535	0.72870	0.73104	0.74541	0.75356
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.93106	0.94377	1.00000	0.99927	0.99820	0.99726	0.75327	0.74905	0.75253	0.74496
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.93125	0.94133	0.99927	1.00000	0.99913	0.99815	0.75638	0.75577	0.75941	0.75202
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.93737	0.94372	0.99820	0.99913	1.00000	0.99966	0.75599	0.75878	0.76533	0.76050
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.93982	0.94535	0.99726	0.99815	0.99966	1.00000	0.75414	0.75787	0.76512	0.76361
							<.0001	<.0001	<.0001	<.0001

----- aar=2017 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	26	107.73077	10.53208	2801	81.00000	127.00000
GEBVredprot	26	108.20117	10.16331	2813	83.33438	126.92465
p_ss	26	110.36523	11.25584	2869	85.29361	130.60001
p_ss_snp	26	110.35877	10.78278	2869	86.55931	129.79669
p_ss_snp2005	26	108.14490	10.70882	2812	84.69880	127.51807
p_ss_snp2010	26	106.55355	10.40145	2770	84.11189	125.48360
p_ss_red	26	120.75206	9.77895	3140	103.44940	138.46202
p_ss_red_snp	26	119.27447	8.50193	3101	104.43342	134.11326
p_ss_red_snp2005	26	113.49329	8.72464	2951	98.03989	128.97056
p_ss_red_snp2010	26	110.52837	8.33065	2874	96.55292	126.32272

Pearson Correlation Coefficients, N = 26

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.94777	0.88897	0.88989	0.89652	0.89810	0.75363	0.77494	0.78413	0.78826
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.94777	1.00000	0.92944	0.93020	0.93540	0.93788	0.75652	0.78663	0.77700	0.78139
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.88897	0.92944	1.00000	0.99930	0.99806	0.99751	0.80983	0.81706	0.82018	0.81031
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.88989	0.93020	0.99930	1.00000	0.99920	0.99838	0.81095	0.82076	0.82500	0.81461
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.89652	0.93540	0.99806	0.99920	1.00000	0.99970	0.80514	0.81787	0.82538	0.81715
	<.0001	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.89810	0.93788	0.99751	0.99838	0.99970	1.00000	0.80167	0.81501	0.82212	0.81584
	<.0001	<.0001	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001

VG bulls born after 2016 no daughters

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----- aar=2017 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	6	103.3333333	6.0553007	92.0000000	109.0000000
GEBVredprot	22	112.7555198	7.7072048	91.8945721	121.6666281
p_ss	22	119.7846759	10.1009380	96.1472749	133.7061584
p_ss_snp	22	118.4987495	8.7003632	96.1991644	131.9709959
p_ss_snp2005	22	116.0617992	8.2243909	93.9903714	127.3133665
p_ss_snp2010	22	114.1981380	8.1985196	91.8683090	125.4005099
p_ss_red	22	124.6410330	10.7532959	103.4806248	144.0316145
p_ss_red_snp	22	122.1029881	8.8880126	105.5158834	136.2168112
p_ss_red_snp2005	22	116.4768756	7.5224309	101.1500331	127.2386517
p_ss_red_snp2010	22	113.8126438	7.3548856	98.3142093	123.4865203

----- aar=2018 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	0	.	.	.	.
GEBVredprot	108	109.3290593	6.7221023	89.3564121	128.6696841
p_ss	108	115.1054814	10.4755021	91.9568446	140.5371337
p_ss_snp	108	114.4285283	9.4096553	95.0218409	137.4387392
p_ss_snp2005	108	111.4475963	9.2890125	90.6454059	134.3244244
p_ss_snp2010	108	109.6045195	8.9555216	89.0737506	131.9405136
p_ss_red	108	123.4134896	8.2117911	101.1030319	143.1904398
p_ss_red_snp	108	121.1334526	7.1559661	101.6847411	137.3229321
p_ss_red_snp2005	108	114.9747206	6.9351853	96.4486840	131.9700598
p_ss_red_snp2010	108	112.0720991	6.4379656	93.5584245	128.0871368

----- aar=2019 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	0	.	.	.	.
GEBVredprot	83	113.7389219	6.0973732	98.7750041	126.2423641
p_ss	83	120.6517053	8.3390035	101.5935585	135.7662938
p_ss_snp	83	119.4558387	7.8422512	99.7861319	133.5505662
p_ss_snp2005	83	115.7922812	7.8805946	96.9969382	130.0640553
p_ss_snp2010	83	113.6199613	7.7161309	94.8846576	127.2548021
p_ss_red	83	128.9075695	7.1255484	108.9788480	142.6806370
p_ss_red_snp	83	125.9517647	6.1936948	108.3118756	139.7717430

p_ss_red_snp2005	83	118.7459670	6.2330511	101.8388310	130.0897760
p_ss_red_snp2010	83	115.3817330	5.9464539	98.6495732	126.0361616

----- aar=2020 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	0	.	.	.	.
GEBVredprot	83	116.1222048	7.1696037	102.0989241	132.6146521
p_ss	83	122.4048914	9.2962659	104.0351060	145.0464703
p_ss_snp	83	120.6854550	8.4519875	105.1157428	139.0758647
p_ss_snp2005	83	117.2582927	8.2833183	100.7238016	135.7445474
p_ss_snp2010	83	115.0750760	7.8865834	98.7531810	132.9963606
p_ss_red	83	128.6867112	8.2460687	108.0287031	147.6384693
p_ss_red_snp	83	125.6176945	6.9050607	106.2844136	141.8625032
p_ss_red_snp2005	83	118.9726382	6.5413236	100.7592667	135.2125901
p_ss_red_snp2010	83	115.7221399	6.0820641	98.7471791	130.7650422

----- aar=2021 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	0	.	.	.	.
GEBVredprot	25	116.7470761	5.1644967	106.3704281	128.9056041
p_ss	25	123.2640145	7.0391264	110.3864461	137.0164069
p_ss_snp	25	121.3993859	6.4221468	109.4381378	133.8127621
p_ss_snp2005	25	117.7414558	6.5321793	104.7801080	129.4435510
p_ss_snp2010	25	115.7167061	6.5188386	103.6250715	127.3735068
p_ss_red	25	130.3452444	5.6854837	121.7545063	145.0575926
p_ss_red_snp	25	127.1628348	4.8702350	120.3257547	139.1643356
p_ss_red_snp2005	25	120.1258321	5.4126422	111.5267697	133.3962615
p_ss_red_snp2010	25	117.0017346	5.6110329	108.7154943	130.7275015

----- aar=2010 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	231	98.5670996	6.8132575	77.0000000	115.0000000
GEBVredprot	1126	96.8412068	7.1420605	74.6725153	115.9203930
p_ss	1126	97.3115327	9.1665427	67.7326499	125.4496714
p_ss_snp	1126	97.1923043	8.3687206	68.6492840	121.6583843
p_ss_snp2005	1126	98.0424520	8.2197627	68.6986199	123.9191445
p_ss_snp2010	1126	98.1079830	7.9731594	68.5094749	124.6139351
p_ss_red	1126	97.6490659	8.8268119	66.5524213	126.4689078
p_ss_red_snp	1126	97.3540399	7.9525694	69.3080083	122.7573025
p_ss_red_snp2005	1126	98.1565704	7.6716654	70.2040147	121.4161673
p_ss_red_snp2010	1126	98.1666380	7.3697600	70.6191612	119.9126428

----- aar=2011 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	227	99.3788546	8.3149877	72.0000000	125.0000000
GEBVredprot	1704	97.8020279	7.5243363	70.7466722	124.7853022
p_ss	1704	99.8939428	9.6643277	67.6824541	129.9494409
p_ss_snp	1704	99.4788879	8.7863041	70.8863904	127.0397948
p_ss_snp2005	1704	99.2216099	8.7017771	71.4481572	126.0621230
p_ss_snp2010	1704	99.0245336	8.5900257	70.9387977	124.5708266
p_ss_red	1704	100.4045221	9.2537530	70.7978042	129.6934105
p_ss_red_snp	1704	99.7435747	8.3433103	74.6346515	127.7955871
p_ss_red_snp2005	1704	99.3501820	8.1513767	72.7660613	127.2015577
p_ss_red_snp2010	1704	99.1440856	8.0103451	71.3174188	125.6519948

----- aar=2012 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	264	101.1742424	9.0027425	68.0000000	125.0000000
GEBVredprot	2168	99.3615563	7.8199128	68.6531122	125.3988322
p_ss	2168	102.3427073	10.1229511	71.8995449	134.3248368
p_ss_snp	2168	101.9166734	9.2276660	74.3544106	131.8942556
p_ss_snp2005	2168	101.3343460	9.2098710	73.4203370	130.8444832
p_ss_snp2010	2168	100.9183057	9.0815652	73.0592383	128.8979249
p_ss_red	2168	102.8959667	9.6126776	74.5365705	134.2434006
p_ss_red_snp	2168	102.2254729	8.6473738	76.1621213	130.4943941

p_ss_red_snp2005	2168	101.4528774	8.5062988	75.1842086	129.3926639
p_ss_red_snp2010	2168	101.0485551	8.3001188	74.7004643	126.5166829

----- aar=2013 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	248	101.1250000	7.9962352	75.0000000	121.0000000
GEBVredprot	2382	99.3026925	7.3335386	75.9889721	122.7187081
p_ss	2382	102.0446006	9.6325758	65.9421818	139.1339455
p_ss_snp	2382	101.7825379	8.7302411	70.1490445	136.4666960
p_ss_snp2005	2382	101.1302319	8.6764307	69.8751470	133.9022256
p_ss_snp2010	2382	100.5012460	8.4173511	72.0165113	131.3657330
p_ss_red	2382	103.2010735	9.3063101	68.5818825	140.5267202
p_ss_red_snp	2382	102.6098364	8.3295918	72.0713923	136.6835558
p_ss_red_snp2005	2382	101.6130623	8.0527089	71.1985185	132.2898360
p_ss_red_snp2010	2382	100.8816751	7.7185756	73.0092544	128.9005193

----- aar=2014 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	225	104.6133333	8.6569955	82.0000000	130.0000000
GEBVredprot	3170	101.7488530	7.8029884	74.3420217	130.4589721
p_ss	3170	105.1630848	10.0596404	71.5876544	140.7858807
p_ss_snp	3170	104.8900810	9.1781774	75.8546826	138.4363626
p_ss_snp2005	3170	103.9925074	9.1940011	74.5410828	140.1968250
p_ss_snp2010	3170	103.2188152	8.9441332	74.2144224	138.4630240
p_ss_red	3170	106.4517336	9.8462869	76.1316160	138.2963329
p_ss_red_snp	3170	105.8303032	8.8867443	78.4076106	136.6899496
p_ss_red_snp2005	3170	104.5184709	8.7370672	77.6119493	138.2888368
p_ss_red_snp2010	3170	103.6203476	8.4207229	78.1517088	136.5463147

----- aar=2015 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	164	104.4329268	8.3842762	82.0000000	126.0000000
GEBVredprot	2747	102.0438876	7.6009910	75.6107481	128.0756201
p_ss	2747	106.7703736	9.7733638	66.2376167	145.3271080
p_ss_snp	2747	106.1744158	8.8476395	68.2859189	139.9583777
p_ss_snp2005	2747	104.6421984	8.8405782	69.7676782	136.3010821
p_ss_snp2010	2747	103.5861895	8.6204654	70.6689007	133.6898459
p_ss_red	2747	109.2556244	9.4076344	73.2544164	142.4066180
p_ss_red_snp	2747	108.1955045	8.3878905	73.9319771	136.1528736
p_ss_red_snp2005	2747	105.7886780	8.1486872	76.3891252	131.4712090
p_ss_red_snp2010	2747	104.4508822	7.8343018	76.3991823	128.9380600

----- aar=2016 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	125	103.6720000	8.8224201	83.0000000	123.0000000
GEBVredprot	2930	102.5971844	7.5416482	50.4547749	135.0477422
p_ss	2930	107.4305463	9.9755753	47.5408355	141.1239215
p_ss_snp	2930	106.8787986	9.0619763	59.4441622	138.2700920
p_ss_snp2005	2930	105.3277476	9.0146221	57.0914170	137.5804722
p_ss_snp2010	2930	104.2004148	8.7871664	57.8044985	135.6828352
p_ss_red	2930	112.0848851	9.0789723	47.5571687	146.6443538
p_ss_red_snp	2930	110.6675635	7.9846703	57.5775646	140.0530685

p_ss_red_snp2005	2930	107.3580811	7.6982512	53.7751945	134.5346647
p_ss_red_snp2010	2930	105.6411744	7.3811659	54.3903035	132.2666714

----- aar=2017 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	115	106.2608696	8.0688778	81.0000000	127.0000000
GEBVredprot	3207	103.0627890	7.3737706	71.8733953	129.5663961
p_ss	3207	109.3280489	9.7873270	74.4316618	142.1189095
p_ss_snp	3207	108.4565203	8.9258743	79.0042307	138.8392489
p_ss_snp2005	3207	106.1699096	8.9170630	74.0830611	138.0346557
p_ss_snp2010	3207	104.7786834	8.6947891	74.2487843	135.8015398
p_ss_red	3207	115.7921781	8.9158225	85.9013495	145.6183757
p_ss_red_snp	3207	113.7224759	7.7617796	88.5366086	139.0684291
p_ss_red_snp2005	3207	109.1776050	7.5282760	78.8085517	133.7735974
p_ss_red_snp2010	3207	107.1118235	7.1915956	78.2643309	129.7076450

All tested bulls born in DNK, FIN or SWE born after 2009

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----- aar=2018 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	3	105.3333333	4.7258156	100.0000000	109.0000000
GEBVredprot	3051	103.5930155	7.4097588	73.8213009	135.7773801
p_ss	3051	109.9662037	10.2136648	77.0033231	148.4842814
p_ss_snp	3051	109.0580844	9.2997938	77.7936531	142.9384577
p_ss_snp2005	3051	106.3832767	9.2227354	76.1051372	139.0261830
p_ss_snp2010	3051	104.8248649	8.9594081	75.8131871	135.4266829
p_ss_red	3051	118.7882371	8.5405072	83.7467954	147.9570961
p_ss_red_snp	3051	116.2706694	7.3155587	84.2348854	140.4494818
p_ss_red_snp2005	3051	110.7543057	7.0914898	81.5810110	134.5218736
p_ss_red_snp2010	3051	108.2967687	6.7672377	81.6849172	130.4647164

----- aar=2019 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	0	.	.	.	.
GEBVredprot	3261	106.5145142	8.0932475	37.6647961	133.4376121
p_ss	3261	114.5986568	10.5359772	38.6809776	149.6833695
p_ss_snp	3261	113.5429842	9.4772652	46.6390271	144.8058040
p_ss_snp2005	3261	110.2632937	9.3130699	53.0204616	143.0178802
p_ss_snp2010	3261	108.4288659	9.0441570	53.1218483	140.5184894
p_ss_red	3261	122.4933583	9.5494230	40.8691932	153.0296340
p_ss_red_snp	3261	119.9129324	8.2438352	45.9752520	144.5990334
p_ss_red_snp2005	3261	113.5677251	7.8318685	52.8791816	140.1243520
p_ss_red_snp2010	3261	110.7297299	7.4341536	51.9927022	136.6026258

----- aar=2020 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	0	.	.	.	.
GEBVredprot	3186	108.6846984	7.1335152	70.6631281	130.3076921
p_ss	3186	116.9960357	9.6464721	82.9018160	147.6232341
p_ss_snp	3186	115.5125296	8.4127297	83.7013739	139.6322316
p_ss_snp2005	3186	111.9339990	8.3595249	81.5719712	136.0579980
p_ss_snp2010	3186	109.9731806	8.1603417	80.4370472	134.6582262
p_ss_red	3186	124.1811483	8.4341168	88.2846776	151.9654206
p_ss_red_snp	3186	121.4271808	7.1335059	88.1363591	145.5453102

p_ss_red_snp2005	3186	114.7858813	6.7913717	88.1146776	136.4405306
p_ss_red_snp2010	3186	111.8445493	6.4586653	85.9370305	135.5389718

----- aar=2021 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	0	.	.	.	.
GEBVredprot	2298	111.3262141	7.1462062	82.1500121	134.1135641
p_ss	2298	119.8176116	9.2496516	88.6370289	149.4346225
p_ss_snp	2298	118.2702955	8.1475407	91.3344715	147.3638125
p_ss_snp2005	2298	114.8111083	8.1689460	88.3041220	144.5595453
p_ss_snp2010	2298	112.7468002	7.9257356	87.8292257	142.1178789
p_ss_red	2298	126.2545738	8.1155943	95.1625547	152.5963016
p_ss_red_snp	2298	123.3123139	6.8179754	98.3925930	145.3790724
p_ss_red_snp2005	2298	116.7519222	6.6578876	92.1304267	137.1696202
p_ss_red_snp2010	2298	113.6451286	6.2933638	90.7341102	132.7234170

----- daug=0 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	11	104.0000000	7.3212021	92.0000000	118.0000000
GEBVredprot	37	110.1073658	7.7926283	91.8945721	121.6666281
p_ss	37	115.6542456	10.2544718	94.0106019	133.7061584
p_ss_snp	37	114.7283415	9.0866948	96.1991644	131.9709959
p_ss_snp2005	37	112.8903867	8.4350492	93.9903714	127.3133665
p_ss_snp2010	37	111.3379045	8.2446085	91.8683090	125.4005099
p_ss_red	37	119.8809638	10.6553093	103.0339101	144.0316145
p_ss_red_snp	37	117.9691177	9.0321768	104.9877587	136.2168112
p_ss_red_snp2005	37	113.5281363	7.5501903	101.1500331	127.2386517
p_ss_red_snp2010	37	111.2708343	7.3807955	98.3142093	123.4865203

----- daug=5 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	15	106.1333333	4.6578147	100.0000000	117.0000000
GEBVredprot	15	105.8241647	5.9430059	93.8200121	117.1718281
p_ss	15	111.3486930	7.3378203	98.6423986	123.7269390
p_ss_snp	15	110.9394330	6.5052527	100.3699974	122.3548021
p_ss_snp2005	15	107.9803744	5.5141458	99.1226449	117.2426472
p_ss_snp2010	15	106.0909636	4.9843423	97.8391549	115.2225198
p_ss_red	15	120.5930056	8.6615932	105.4988066	134.0777147
p_ss_red_snp	15	118.3589482	6.7821543	105.1629477	129.3435169
p_ss_red_snp2005	15	112.2811003	5.5608944	99.9572680	121.7532114
p_ss_red_snp2010	15	109.0752179	5.2106274	97.1247938	117.5982568

----- daug=20 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	14	106.8571429	9.5664248	92.0000000	125.0000000
GEBVredprot	14	107.1757020	7.0439920	94.6021022	118.4007321
p_ss	14	112.8509092	8.4131232	103.7449012	129.5731313
p_ss_snp	14	113.2001005	7.6643563	106.2374295	127.7438867
p_ss_snp2005	14	110.3520804	7.6922081	101.6558373	125.2247621
p_ss_snp2010	14	108.6127213	7.3142610	99.8277709	122.5497230
p_ss_red	14	121.9457734	7.6375703	111.0422749	137.5634914
p_ss_red_snp	14	120.6938984	6.7572591	110.8374117	133.2820744

p_ss_red_snp2005	14	114.8423460	6.3795280	108.2573782	126.8926539
p_ss_red_snp2010	14	112.3613249	5.8778470	106.4918317	124.7829269

----- daug=40 -----

Variable	N	Mean	Std. Dev	Minimum	Maximum
p_indeks	4	108.2500000	2.5000000	105.0000000	111.0000000
GEBVredprot	4	106.2071996	2.7374255	104.5816222	110.2779022
p_ss	4	110.6996122	5.5612771	106.7419836	118.8527734
p_ss_snp	4	111.0014008	4.9878439	107.4301010	118.2607094
p_ss_snp2005	4	108.7932349	6.0897462	104.1327366	117.6239054
p_ss_snp2010	4	107.2158884	6.4093066	102.0887829	116.3608353
p_ss_red	4	118.4823689	1.7444277	116.5653510	120.1154903
p_ss_red_snp	4	117.1311114	0.7485790	116.3315715	118.0502148
p_ss_red_snp2005	4	112.1052447	2.7917148	108.6666916	114.8147082
p_ss_red_snp2010	4	109.7647577	3.2251185	105.5001308	113.3336298

----- daug=60 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	8	105.3750000	10.0276404	91.0000000	118.0000000
GEBVredprot	8	105.4706095	9.1230378	93.9285322	117.6296273
p_ss	8	111.5825046	13.2029802	99.0926945	129.5348625
p_ss_snp	8	111.8380295	12.0222470	100.2484920	127.8909722
p_ss_snp2005	8	108.9553976	11.5587793	97.6545447	124.0074224
p_ss_snp2010	8	107.0097171	11.2043746	95.9155142	121.4713846
p_ss_red	8	120.9992813	12.4324361	103.4493994	138.1306470
p_ss_red_snp	8	118.8786865	9.4497913	106.7613883	131.9457781
p_ss_red_snp2005	8	112.5341445	8.6050147	100.6287980	123.7223930
p_ss_red_snp2010	8	109.3032414	7.8713480	98.9811829	120.0603030

----- daug=90 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	10	101.3000000	10.6671875	86.0000000	123.0000000
GEBVredprot	10	102.9469652	11.2237754	86.3612522	125.1901222
p_ss	10	106.1204988	13.3921620	85.2936141	133.1959081
p_ss_snp	10	105.9839309	12.9573805	86.5593090	131.9326258
p_ss_snp2005	10	103.5406348	12.6763917	84.6988007	129.3220090
p_ss_snp2010	10	102.1029649	12.3102361	84.1118945	127.1860783
p_ss_red	10	115.8269654	8.4563341	106.1768444	133.1218344
p_ss_red_snp	10	114.0034109	7.6701391	104.4334195	128.1223083
p_ss_red_snp2005	10	108.5565607	7.0382838	98.0398902	121.7832703
p_ss_red_snp2010	10	106.2167833	6.6415160	96.5529234	118.7432490

----- daug=125 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	16	106.5625000	10.5449435	91.0000000	127.0000000
GEBVredprot	16	106.7013031	11.8199771	91.3344022	127.6663222
p_ss	16	110.8667988	11.4422989	92.4843158	130.2109441
p_ss_snp	16	110.7637058	11.0159219	93.2459435	128.9013856
p_ss_snp2005	16	108.5237634	10.8407324	91.6983440	126.8706975
p_ss_snp2010	16	106.7996800	10.6498110	90.0927367	124.9363121
p_ss_red	16	118.5603130	9.4148533	105.2324347	136.4419252
p_ss_red_snp	16	116.4395062	8.2728416	105.2607723	133.1797742

p_ss_red_snp2005	16	110.8951718	8.0864639	98.9301470	128.9705594
p_ss_red_snp2010	16	107.7726354	8.0954751	96.5241422	126.3227225

----- daug=200 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	8	101.7500000	9.2079158	84.0000000	114.0000000
GEBVredprot	8	102.6935959	9.4816584	83.9718322	114.3577122
p_ss	8	105.2835449	11.5758927	81.0215438	120.2916792
p_ss_snp	8	105.1990379	11.3786708	81.5481702	120.1824133
p_ss_snp2005	8	103.1668770	11.1244243	79.9778511	117.0417829
p_ss_snp2010	8	101.7518802	10.6183329	79.6129868	114.7227105
p_ss_red	8	116.3799899	11.5947832	96.1362781	138.4620188
p_ss_red_snp	8	114.5363629	10.1129014	97.9341602	134.1132635
p_ss_red_snp2005	8	109.0483445	8.7794009	94.8018367	125.5866880
p_ss_red_snp2010	8	106.5778626	6.9070823	96.1080657	120.1860644

----- daug=500 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	55	106.2909091	9.7518711	81.0000000	126.0000000
GEBVredprot	55	105.7491787	9.6632859	83.3343822	125.2570722
p_ss	55	107.7429207	10.1546308	87.7275078	130.6000100
p_ss_snp	55	107.7819319	10.0873857	88.1887605	130.2187600
p_ss_snp2005	55	105.9256274	10.0867280	85.7395845	128.6119475
p_ss_snp2010	55	104.4998626	9.8472720	84.8366179	126.6425358
p_ss_red	55	120.2086915	8.2144824	102.0149417	135.8620245
p_ss_red_snp	55	118.7565511	7.1513246	104.2153922	131.2872206
p_ss_red_snp2005	55	112.9964725	7.4315836	98.1953014	127.2303375
p_ss_red_snp2010	55	110.1838374	7.2209137	96.2106771	125.3366526

Appendix 2 Statistics for females

----- aar=2010 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	1113	99.5840072	8.3928067	71.0000000	126.0000000
GEBVredprot	1196	96.8232812	8.2378483	68.5953035	122.8896521
p_ss	1196	100.1114352	10.4805056	61.6372004	134.0633336
p_ss_snp	1196	99.6501009	9.5475173	64.8118874	129.1380014
p_ss_snp2005	1196	99.4132740	9.5534235	65.9180573	128.5927566
p_ss_snp2010	1196	99.0098683	9.3491363	67.6976598	127.3984972
p_ss_red	1196	100.4914511	10.2970002	66.3080983	135.5370252
p_ss_red_snp	1196	99.9424575	9.1835575	70.9761408	130.2706124
p_ss_red_snp2005	1196	99.6264393	9.0764625	70.8864170	129.6420893
p_ss_red_snp2010	1196	99.1762080	8.8047366	71.5495457	128.8379514

----- aar=2011 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	1724	99.0533643	8.6362989	71.0000000	134.0000000

GEBVredprot	1875	96.6522110	8.5064732	66.7117592	126.6417071
p_ss	1875	100.5671401	10.5673495	65.0165878	140.4924868
p_ss_snp	1875	100.0305682	9.7274248	65.9033897	136.1469449
p_ss_snp2005	1875	99.2708408	9.6463224	65.7045911	136.2115248
p_ss_snp2010	1875	98.7680262	9.4570275	65.0209940	133.7898077
p_ss_red	1875	101.2013884	10.3824001	64.8935230	140.0742702
p_ss_red_snp	1875	100.5242298	9.4067465	66.8533790	134.2922888
p_ss_red_snp2005	1875	99.5864596	9.2046625	66.7655895	133.5689406
p_ss_red_snp2010	1875	99.0466525	8.9831845	66.3005382	130.9965434

----- aar=2012 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	2618	100.3044309	8.8091983	69.0000000	133.0000000
GEBVredprot	2924	97.9821700	8.5089886	66.0802283	131.6957381
p_ss	2924	102.7670412	10.4341982	66.6935891	143.9621885
p_ss_snp	2924	102.0540606	9.6143765	68.9228630	139.1014448
p_ss_snp2005	2924	100.8825936	9.6085421	69.5711639	135.5142572
p_ss_snp2010	2924	100.1707658	9.4768452	69.7942345	134.6582262
p_ss_red	2924	103.3927695	10.1222058	66.6123868	139.9850547
p_ss_red_snp	2924	102.5235520	9.1872100	69.5443217	134.9188775
p_ss_red_snp2005	2924	101.0856175	9.0944723	70.4125087	132.2706494
p_ss_red_snp2010	2924	100.3374407	8.9330421	70.6279207	131.3406668

----- aar=2013 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	4190	99.7183771	8.3923211	47.0000000	139.0000000
GEBVredprot	4708	97.5297866	8.3231712	41.4764981	131.6548331
p_ss	4708	102.3353651	9.9693298	38.9431186	141.9467000
p_ss_snp	4708	101.5922472	9.1124295	50.9595036	138.1933518
p_ss_snp2005	4708	100.1293377	9.1502034	50.4751149	136.9151893
p_ss_snp2010	4708	99.2438670	8.9722962	51.0338953	134.8519023
p_ss_red	4708	103.1399705	9.6572248	40.7761542	141.9477955
p_ss_red_snp	4708	102.2027081	8.6757498	51.2296457	137.4572011
p_ss_red_snp2005	4708	100.4187023	8.5927902	49.3002468	135.7306275
p_ss_red_snp2010	4708	99.4351333	8.3884546	49.2616141	132.8923503

----- aar=2014 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	4659	101.9714531	9.2776596	67.0000000	139.0000000
GEBVredprot	5343	99.8366113	8.9081396	62.5218585	131.2928711
p_ss	5343	105.1354524	10.7531484	63.0488460	145.7225519
p_ss_snp	5343	104.3687863	9.9163357	65.2865259	142.1774501
p_ss_snp2005	5343	102.6974128	9.9172828	64.3187557	142.6724449
p_ss_snp2010	5343	101.6259934	9.6898075	63.6421765	141.2744509
p_ss_red	5343	106.0952460	10.4796507	64.8334300	144.4458292
p_ss_red_snp	5343	105.0848485	9.5198529	67.3460184	138.9661289
p_ss_red_snp2005	5343	103.0137602	9.4200610	66.3971434	137.7580084
p_ss_red_snp2010	5343	101.8222627	9.1570577	66.3602279	135.9206359

----- aar=2015 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	5809	102.3134791	9.0479492	35.0000000	135.0000000
GEBVredprot	7016	100.0670487	8.7115277	28.3077161	131.8215041
p_ss	7016	105.8661118	10.5139383	33.2704114	145.6651488
p_ss_snp	7016	105.0744612	9.6303669	41.4891163	141.5187629
p_ss_snp2005	7016	103.2530656	9.6209856	43.8088527	139.2948550
p_ss_snp2010	7016	102.1314477	9.4045278	44.2983412	138.2068717
p_ss_red	7016	107.7522889	10.0458465	35.7119006	141.3041694
p_ss_red_snp	7016	106.5997120	8.9687238	43.0564995	137.9942771
p_ss_red_snp2005	7016	104.0243061	8.8133083	43.7099199	136.4021574
p_ss_red_snp2010	7016	102.6688433	8.5495558	44.2411671	134.9320633

----- aar=2016 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	8814	102.3059905	8.8808044	70.0000000	137.0000000
GEBVredprot	11297	100.2630719	8.5054446	38.5718329	134.5529861
p_ss	11297	106.3804597	10.3417370	38.7938704	143.1521663
p_ss_snp	11297	105.5067531	9.4210903	46.4868256	139.3124805
p_ss_snp2005	11297	103.4802724	9.3872225	45.4432736	137.7659838
p_ss_snp2010	11297	102.2715300	9.1743046	45.3904244	136.4263014
p_ss_red	11297	110.8190566	9.1216791	42.0952689	148.4860165
p_ss_red_snp	11297	108.9963783	7.9250769	48.2821214	139.1707293

p_ss_red_snp2005	11297	105.1942866	7.6609585	45.8543389	131.2409702
p_ss_red_snp2010	11297	103.4315517	7.3841970	45.5694833	128.5501391

----- aar=2017 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	12675	103.0695069	8.4687777	66.0000000	143.0000000
GEBVredprot	17052	100.7317806	8.3515208	42.9250841	139.1360021
p_ss	17052	107.5188446	10.1468590	35.3637131	146.4560367
p_ss_snp	17052	106.5447586	9.2527897	46.8513418	145.0743949
p_ss_snp2005	17052	103.9970073	9.2448070	47.7109926	142.6660479
p_ss_snp2010	17052	102.5995748	9.0294757	48.1806094	140.0874039
p_ss_red	17052	113.6100361	8.9218801	38.4903258	149.0404270
p_ss_red_snp	17052	111.4768611	7.7146849	48.4905580	140.7627761
p_ss_red_snp2005	17052	106.7265991	7.4924840	47.9220115	136.3573888
p_ss_red_snp2010	17052	104.7203147	7.2257646	48.0152619	132.6671059

----- aar=2018 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	18253	102.5312551	8.1869236	68.0000000	139.0000000
GEBVredprot	25016	100.3567734	8.2394797	41.3236521	134.0095031
p_ss	25016	106.3257924	10.4176108	40.0943708	153.7589935
p_ss_snp	25016	105.3132093	9.5337318	48.1834247	149.7107854
p_ss_snp2005	25016	102.6278585	9.4628257	50.0983345	146.7792872
p_ss_snp2010	25016	101.2110858	9.2195078	50.3897661	144.1920872
p_ss_red	25016	115.3306269	8.7990677	40.8003698	156.6556064
p_ss_red_snp	25016	113.1314079	7.5653703	47.6344333	142.1374350
p_ss_red_snp2005	25016	107.7645056	7.2854771	47.8618936	137.1632247
p_ss_red_snp2010	25016	105.5566766	6.9772526	47.6942886	133.2427304

----- aar=2019 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	11742	105.1367740	7.3073610	73.0000000	136.0000000
GEBVredprot	28030	103.7770083	7.7238449	49.6305081	136.6967051
p_ss	28030	111.9794301	9.7969222	45.5610645	149.3835975
p_ss_snp	28030	110.8779935	8.8373884	54.0623680	145.7458721
p_ss_snp2005	28030	107.5417923	8.7289797	53.2545900	142.4165669
p_ss_snp2010	28030	105.7877337	8.5030438	52.0597537	139.4626424
p_ss_red	28030	120.0262224	8.7147954	49.2089298	152.7874776
p_ss_red_snp	28030	117.5323228	7.4330080	55.1701213	143.8829320
p_ss_red_snp2005	28030	111.2995580	7.1822242	53.6172250	137.0800829
p_ss_red_snp2010	28030	108.6312029	6.9016764	51.9720548	134.3877227

----- aar=2020 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	2	112.5000000	0.7071068	112.0000000	113.0000000
GEBVredprot	32643	105.9034599	7.2435445	74.8284041	135.7508841
p_ss	32643	114.4214491	9.8453639	76.3482893	153.0956681
p_ss_snp	32643	112.8662291	8.6171831	77.6938908	146.5772249
p_ss_snp2005	32643	109.2820679	8.5374686	71.2447341	142.4741394
p_ss_snp2010	32643	107.4593531	8.3082737	70.1416019	139.1377664
p_ss_red	32643	121.5948586	8.5678031	83.6919916	156.3242346
p_ss_red_snp	32643	119.0205811	7.3483586	78.9657860	145.4302225

p_ss_red_snp2005	32643	112.5286182	7.0489533	72.5070426	137.1376426
p_ss_red_snp2010	32643	109.7386428	6.6937861	71.2535996	132.7672145

----- aar=2021 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	0	.	.	.	.
GEBVredprot	18393	107.0011558	7.4535532	72.6164545	133.2684129
p_ss	18393	115.0782753	9.8370233	72.7822778	151.3544391
p_ss_snp	18393	113.7494610	8.5937785	77.4131493	144.2238570
p_ss_snp2005	18393	110.3923382	8.5543803	73.8111907	142.0391468
p_ss_snp2010	18393	108.5035063	8.2871134	73.2766553	139.0378046
p_ss_red	18393	121.9745514	8.5828900	85.5954678	152.8257128
p_ss_red_snp	18393	119.4903292	7.2406445	85.4656846	145.4941601
p_ss_red_snp2005	18393	113.3203705	6.9489099	82.7405194	137.5149785
p_ss_red_snp2010	18393	110.5108083	6.5846054	81.2012674	132.9486614

----- aar=2010 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	1113	99.58401	8.39281	110837	71.00000	126.00000
GEBVredprot	1196	96.82328	8.23785	115801	68.59530	122.88965
p_ss	1196	100.11144	10.48051	119733	61.63720	134.06333
p_ss_snp	1196	99.65010	9.54752	119182	64.81189	129.13800
p_ss_snp2005	1196	99.41327	9.55342	118898	65.91806	128.59276
p_ss_snp2010	1196	99.00987	9.34914	118416	67.69766	127.39850
p_ss_red	1196	100.49145	10.29700	120188	66.30810	135.53703
p_ss_red_snp	1196	99.94246	9.18356	119531	70.97614	130.27061
p_ss_red_snp2005	1196	99.62644	9.07646	119153	70.88642	129.64209
p_ss_red_snp2010	1196	99.17621	8.80474	118615	71.54955	128.83795

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.79490	0.80192	0.81485	0.81846	0.82040	0.80853	0.82341	0.83272	0.83760
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	1113	1113	1113	1113	1113	1113	1113	1113	1113	1113
GEBVredprot	0.79490	1.00000	0.90491	0.90723	0.90066	0.89386	0.88600	0.88896	0.88224	0.87309
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	1113	1196	1196	1196	1196	1196	1196	1196	1196	1196
p_ss	0.80192	0.90491	1.00000	0.99339	0.98209	0.97512	0.97746	0.96936	0.95715	0.94867
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	1113	1196	1196	1196	1196	1196	1196	1196	1196	1196
p_ss_snp	0.81485	0.90723	0.99339	1.00000	0.99091	0.98475	0.97654	0.98206	0.97229	0.96453
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	1113	1196	1196	1196	1196	1196	1196	1196	1196	1196
p_ss_snp2005	0.81846	0.90066	0.98209	0.99091	1.00000	0.99560	0.96013	0.96871	0.98030	0.97436

----- aar=2011 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	1724	99.05336	8.63630	170768	71.00000	134.00000
GEBVredprot	1875	96.65221	8.50647	181223	66.71176	126.64171
p_ss	1875	100.56714	10.56735	188563	65.01659	140.49249
p_ss_snp	1875	100.03057	9.72742	187557	65.90339	136.14694
p_ss_snp2005	1875	99.27084	9.64632	186133	65.70459	136.21152
p_ss_snp2010	1875	98.76803	9.45703	185190	65.02099	133.78981
p_ss_red	1875	101.20139	10.38240	189753	64.89352	140.07427
p_ss_red_snp	1875	100.52423	9.40675	188483	66.85338	134.29229
p_ss_red_snp2005	1875	99.58646	9.20466	186725	66.76559	133.56894
p_ss_red_snp2010	1875	99.04665	8.98318	185712	66.30054	130.99654

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.79256	0.81164	0.82492	0.83059	0.83171	0.82538	0.83864	0.85029	0.85399
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	1724	1724	1724	1724	1724	1724	1724	1724	1724	1724
GEBVredprot	0.79256	1.00000	0.91039	0.91125	0.91108	0.90627	0.88845	0.88935	0.88945	0.88239
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	1724	1875	1875	1875	1875	1875	1875	1875	1875	1875
p_ss	0.81164	0.91039	1.00000	0.99239	0.97981	0.97213	0.97652	0.96633	0.95245	0.94304
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	1724	1875	1875	1875	1875	1875	1875	1875	1875	1875
p_ss_snp	0.82492	0.91125	0.99239	1.00000	0.98962	0.98297	0.97626	0.98132	0.97010	0.96160
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	1724	1875	1875	1875	1875	1875	1875	1875	1875	1875
p_ss_snp2005	0.83059	0.91108	0.97981	0.98962	1.00000	0.99567	0.95824	0.96641	0.97989	0.97356

----- aar=2012 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	2618	100.30443	8.80920	262597	69.00000	133.00000
GEBVredprot	2924	97.98217	8.50899	286500	66.08023	131.69574
p_ss	2924	102.76704	10.43420	300491	66.69359	143.96219
p_ss_snp	2924	102.05406	9.61438	298406	68.92286	139.10144
p_ss_snp2005	2924	100.88259	9.60854	294981	69.57116	135.51426
p_ss_snp2010	2924	100.17077	9.47685	292899	69.79423	134.65823
p_ss_red	2924	103.39277	10.12221	302320	66.61239	139.98505
p_ss_red_snp	2924	102.52355	9.18721	299779	69.54432	134.91888
p_ss_red_snp2005	2924	101.08562	9.09447	295574	70.41251	132.27065
p_ss_red_snp2010	2924	100.33744	8.93304	293387	70.62792	131.34067

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.80601	0.80734	0.82431	0.82951	0.83294	0.81075	0.82989	0.83816	0.84244
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	2618	2618	2618	2618	2618	2618	2618	2618	2618	2618
GEBVredprot	0.80601	1.00000	0.90178	0.90666	0.90486	0.90299	0.88052	0.88608	0.88174	0.87680
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	2618	2924	2924	2924	2924	2924	2924	2924	2924	2924
p_ss	0.80734	0.90178	1.00000	0.99064	0.97695	0.96985	0.97373	0.96150	0.94408	0.93456
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	2618	2924	2924	2924	2924	2924	2924	2924	2924	2924
p_ss_snp	0.82431	0.90666	0.99064	1.00000	0.99023	0.98455	0.97133	0.97882	0.96674	0.95867
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	2618	2924	2924	2924	2924	2924	2924	2924	2924	2924
p_ss_snp2005	0.82951	0.90486	0.97695	0.99023	1.00000	0.99617	0.95330	0.96527	0.97685	0.97053

----- aar=2013 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	4190	99.71838	8.39232	417820	47.00000	139.00000
GEBVredprot	4708	97.52979	8.32317	459170	41.47650	131.65483
p_ss	4708	102.33537	9.96933	481795	38.94312	141.94670
p_ss_snp	4708	101.59225	9.11243	478296	50.95950	138.19335
p_ss_snp2005	4708	100.12934	9.15020	471409	50.47511	136.91519
p_ss_snp2010	4708	99.24387	8.97230	467240	51.03390	134.85190
p_ss_red	4708	103.13997	9.65722	485583	40.77615	141.94780
p_ss_red_snp	4708	102.20271	8.67575	481170	51.22965	137.45720
p_ss_red_snp2005	4708	100.41870	8.59279	472771	49.30025	135.73063
p_ss_red_snp2010	4708	99.43513	8.38845	468141	49.26161	132.89235

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.78003	0.78938	0.80817	0.81660	0.81810	0.78812	0.80983	0.82453	0.82793
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	4190	4190	4190	4190	4190	4190	4190	4190	4190	4190
GEBVredprot	0.78003	1.00000	0.89248	0.89629	0.89969	0.89757	0.86507	0.87107	0.87492	0.86998
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	4190	4708	4708	4708	4708	4708	4708	4708	4708	4708
p_ss	0.78938	0.89248	1.00000	0.99012	0.97681	0.96946	0.97088	0.95857	0.94275	0.93224
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	4190	4708	4708	4708	4708	4708	4708	4708	4708	4708
p_ss_snp	0.80817	0.89629	0.99012	1.00000	0.99015	0.98403	0.96784	0.97671	0.96512	0.95605
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	4190	4708	4708	4708	4708	4708	4708	4708	4708	4708
p_ss_snp2005	0.81660	0.89969	0.97681	0.99015	1.00000	0.99666	0.94880	0.96219	0.97514	0.96898

----- aar=2014 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	4659	101.97145	9.27766	475085	67.00000	139.00000
GEBVredprot	5343	99.83661	8.90814	533427	62.52186	131.29287
p_ss	5343	105.13545	10.75315	561739	63.04885	145.72255
p_ss_snp	5343	104.36879	9.91634	557642	65.28653	142.17745
p_ss_snp2005	5343	102.69741	9.91728	548712	64.31876	142.67244
p_ss_snp2010	5343	101.62599	9.68981	542988	63.64218	141.27445
p_ss_red	5343	106.09525	10.47965	566867	64.83343	144.44583
p_ss_red_snp	5343	105.08485	9.51985	561468	67.34602	138.96613
p_ss_red_snp2005	5343	103.01376	9.42006	550403	66.39714	137.75801
p_ss_red_snp2010	5343	101.82226	9.15706	544036	66.36023	135.92064

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.80225	0.79351	0.81709	0.83041	0.83351	0.79439	0.82182	0.84144	0.84708
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	4659	4659	4659	4659	4659	4659	4659	4659	4659	4659
GEBVredprot	0.80225	1.00000	0.90099	0.90630	0.91204	0.90991	0.88101	0.88547	0.88997	0.88489
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	4659	5343	5343	5343	5343	5343	5343	5343	5343	5343
p_ss	0.79351	0.90099	1.00000	0.99054	0.97677	0.96992	0.97213	0.95891	0.94048	0.93049
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	4659	5343	5343	5343	5343	5343	5343	5343	5343	5343
p_ss_snp	0.81709	0.90630	0.99054	1.00000	0.99073	0.98525	0.97078	0.97762	0.96488	0.95667
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	4659	5343	5343	5343	5343	5343	5343	5343	5343	5343
p_ss_snp2005	0.83041	0.91204	0.97677	0.99073	1.00000	0.99733	0.95315	0.96571	0.97591	0.97061

----- aar=2015 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	5809	102.31348	9.04795	594339	35.00000	135.00000
GEBVredprot	7016	100.06705	8.71153	702070	28.30772	131.82150
p_ss	7016	105.86611	10.51394	742757	33.27041	145.66515
p_ss_snp	7016	105.07446	9.63037	737202	41.48912	141.51876
p_ss_snp2005	7016	103.25307	9.62099	724424	43.80885	139.29485
p_ss_snp2010	7016	102.13145	9.40453	716554	44.29834	138.20687
p_ss_red	7016	107.75229	10.04585	755990	35.71190	141.30417
p_ss_red_snp	7016	106.59971	8.96872	747904	43.05650	137.99428
p_ss_red_snp2005	7016	104.02431	8.81331	729835	43.70992	136.40216
p_ss_red_snp2010	7016	102.66884	8.54956	720325	44.24117	134.93206

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.80825	0.79715	0.81751	0.82802	0.82993	0.74564	0.77277	0.79511	0.79960
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	5809	5809	5809	5809	5809	5809	5809	5809	5809	5809
GEBVredprot	0.80825	1.00000	0.89302	0.89892	0.90382	0.90237	0.84804	0.85658	0.86695	0.86309
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	5809	7016	7016	7016	7016	7016	7016	7016	7016	7016
p_ss	0.79715	0.89302	1.00000	0.98980	0.97615	0.96895	0.93484	0.92199	0.90868	0.89813
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	5809	7016	7016	7016	7016	7016	7016	7016	7016	7016
p_ss_snp	0.81751	0.89892	0.98980	1.00000	0.99064	0.98474	0.93239	0.94199	0.93484	0.92588
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	5809	7016	7016	7016	7016	7016	7016	7016	7016	7016
p_ss_snp2005	0.82802	0.90382	0.97615	0.99064	1.00000	0.99720	0.91279	0.92835	0.94622	0.94084

----- aar=2016 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	8814	102.30599	8.88080	901725	70.00000	137.00000
GEBVredprot	11297	100.26307	8.50544	1132672	38.57183	134.55299
p_ss	11297	106.38046	10.34174	1201780	38.79387	143.15217
p_ss_snp	11297	105.50675	9.42109	1191910	46.48683	139.31248
p_ss_snp2005	11297	103.48027	9.38722	1169017	45.44327	137.76598
p_ss_snp2010	11297	102.27153	9.17430	1155361	45.39042	136.42630
p_ss_red	11297	110.81906	9.12168	1251923	42.09527	148.48602
p_ss_red_snp	11297	108.99638	7.92508	1231332	48.28212	139.17073
p_ss_red_snp2005	11297	105.19429	7.66096	1188380	45.85434	131.24097
p_ss_red_snp2010	11297	103.43155	7.38420	1168466	45.56948	128.55014

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.79604	0.79049	0.81299	0.82140	0.82253	0.63416	0.66435	0.68172	0.67934
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	8814	8814	8814	8814	8814	8814	8814	8814	8814	8814
GEBVredprot	0.79604	1.00000	0.89081	0.89617	0.89819	0.89563	0.80898	0.81612	0.82050	0.80906
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	8814	11297	11297	11297	11297	11297	11297	11297	11297	11297
p_ss	0.79049	0.89081	1.00000	0.98745	0.97446	0.96778	0.88390	0.86479	0.85471	0.83867
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	8814	11297	11297	11297	11297	11297	11297	11297	11297	11297
p_ss_snp	0.81299	0.89617	0.98745	1.00000	0.99138	0.98610	0.87574	0.88784	0.88469	0.87063
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	8814	11297	11297	11297	11297	11297	11297	11297	11297	11297
p_ss_snp2005	0.82140	0.89819	0.97446	0.99138	1.00000	0.99733	0.84942	0.86851	0.89232	0.88179

----- aar=2017 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	12675	103.06951	8.46878	1306406	66.00000	143.00000
GEBVredprot	17052	100.73178	8.35152	1717678	42.92508	139.13600
p_ss	17052	107.51884	10.14686	1833411	35.36371	146.45604
p_ss_snp	17052	106.54476	9.25279	1816801	46.85134	145.07439
p_ss_snp2005	17052	103.99701	9.24481	1773357	47.71099	142.66605
p_ss_snp2010	17052	102.59957	9.02948	1749528	48.18061	140.08740
p_ss_red	17052	113.61004	8.92188	1937278	38.49033	149.04043
p_ss_red_snp	17052	111.47686	7.71468	1900903	48.49056	140.76278
p_ss_red_snp2005	17052	106.72660	7.49248	1819902	47.92201	136.35739
p_ss_red_snp2010	17052	104.72031	7.22576	1785691	48.01526	132.66711

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.77154	0.78329	0.79977	0.80437	0.80526	0.61628	0.63737	0.64786	0.64810
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	12675	12675	12675	12675	12675	12675	12675	12675	12675	12675
GEBVredprot	0.77154	1.00000	0.89255	0.89141	0.88894	0.88578	0.80815	0.80678	0.80225	0.79280
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	12675	17052	17052	17052	17052	17052	17052	17052	17052	17052
p_ss	0.78329	0.89255	1.00000	0.98871	0.97837	0.97292	0.86163	0.83957	0.83056	0.81684
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	12675	17052	17052	17052	17052	17052	17052	17052	17052	17052
p_ss_snp	0.79977	0.89141	0.98871	1.00000	0.99258	0.98822	0.85488	0.85879	0.85489	0.84290
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	12675	17052	17052	17052	17052	17052	17052	17052	17052	17052
p_ss_snp2005	0.80437	0.88894	0.97837	0.99258	1.00000	0.99739	0.83209	0.84032	0.86004	0.85031

----- aar=2018 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	18253	102.53126	8.18692	1871503	68.00000	139.00000
GEBVredprot	25016	100.35677	8.23948	2510525	41.32365	134.00950
p_ss	25016	106.32579	10.41761	2659846	40.09437	153.75899
p_ss_snp	25016	105.31321	9.53373	2634515	48.18342	149.71079
p_ss_snp2005	25016	102.62786	9.46283	2567339	50.09833	146.77929
p_ss_snp2010	25016	101.21109	9.21951	2531897	50.38977	144.19209
p_ss_red	25016	115.33063	8.79907	2885111	40.80037	156.65561
p_ss_red_snp	25016	113.13141	7.56537	2830095	47.63443	142.13743
p_ss_red_snp2005	25016	107.76451	7.28548	2695837	47.86189	137.16322
p_ss_red_snp2010	25016	105.55668	6.97725	2640606	47.69429	133.24273

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.75887	0.76784	0.78644	0.79160	0.79253	0.53485	0.56384	0.58782	0.59161
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	18253	18253	18253	18253	18253	18253	18253	18253	18253	18253
GEBVredprot	0.75887	1.00000	0.88755	0.88528	0.88385	0.88091	0.75842	0.76373	0.77088	0.76366
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	18253	25016	25016	25016	25016	25016	25016	25016	25016	25016
p_ss	0.76784	0.88755	1.00000	0.98760	0.97853	0.97356	0.80222	0.78088	0.78481	0.77300
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	18253	25016	25016	25016	25016	25016	25016	25016	25016	25016
p_ss_snp	0.78644	0.88528	0.98760	1.00000	0.99315	0.98908	0.78808	0.79646	0.80537	0.79548
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	18253	25016	25016	25016	25016	25016	25016	25016	25016	25016
p_ss_snp2005	0.79160	0.88385	0.97853	0.99315	1.00000	0.99756	0.76666	0.77925	0.81066	0.80276

----- aar=2019 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	11742	105.13677	7.30736	1234516	73.00000	136.00000
GEBVredprot	28030	103.77701	7.72384	2908870	49.63051	136.69671
p_ss	28030	111.97943	9.79692	3138783	45.56106	149.38360
p_ss_snp	28030	110.87799	8.83739	3107910	54.06237	145.74587
p_ss_snp2005	28030	107.54179	8.72898	3014396	53.25459	142.41657
p_ss_snp2010	28030	105.78773	8.50304	2965230	52.05975	139.46264
p_ss_red	28030	120.02622	8.71480	3364335	49.20893	152.78748
p_ss_red_snp	28030	117.53232	7.43301	3294431	55.17012	143.88293
p_ss_red_snp2005	28030	111.29956	7.18222	3119727	53.61723	137.08008
p_ss_red_snp2010	28030	108.63120	6.90168	3044933	51.97205	134.38772

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.70580	0.69922	0.72421	0.73310	0.73540	0.49918	0.52656	0.54603	0.54878
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	11742	11742	11742	11742	11742	11742	11742	11742	11742	11742
GEBVredprot	0.70580	1.00000	0.87712	0.87632	0.87617	0.87301	0.77670	0.77805	0.76979	0.75891
	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	11742	28030	28030	28030	28030	28030	28030	28030	28030	28030
p_ss	0.69922	0.87712	1.00000	0.98588	0.97437	0.96842	0.83456	0.80803	0.79568	0.78065
	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	11742	28030	28030	28030	28030	28030	28030	28030	28030	28030
p_ss_snp	0.72421	0.87632	0.98588	1.00000	0.99129	0.98635	0.82718	0.83089	0.82308	0.80979
	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	11742	28030	28030	28030	28030	28030	28030	28030	28030	28030
p_ss_snp2005	0.73310	0.87617	0.97437	0.99129	1.00000	0.99694	0.80952	0.81921	0.83594	0.82510

----- aar=2020 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	2	112.50000	0.70711	225.00000	112.00000	113.00000
GEBVredprot	32643	105.90346	7.24354	3457007	74.82840	135.75088
p_ss	32643	114.42145	9.84536	3735059	76.34829	153.09567
p_ss_snp	32643	112.86623	8.61718	3684292	77.69389	146.57722
p_ss_snp2005	32643	109.28207	8.53747	3567295	71.24473	142.47414
p_ss_snp2010	32643	107.45935	8.30827	3507796	70.14160	139.13777
p_ss_red	32643	121.59486	8.56780	3969221	83.69199	156.32423
p_ss_red_snp	32643	119.02058	7.34836	3885189	78.96579	145.43022
p_ss_red_snp2005	32643	112.52862	7.04895	3673272	72.50704	137.13764
p_ss_red_snp2010	32643	109.73864	6.69379	3582199	71.25360	132.76721

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	-1.00000	-1.00000	-1.00000	-1.00000
GEBVredprot	.	1.00000	0.86239	0.86425	0.85955	0.85651	0.78373	0.79613	0.78496	0.77784
p_ss	.	.	1.00000	0.98122	0.96797	0.96321	0.84544	0.83508	0.82440	0.81136
p_ss_snp	.	.	.	1.00000	0.99065	0.98566	0.84127	0.86391	0.85906	0.84694
p_ss_snp2005	1.00000	0.99599	0.82105	0.84970	0.87043	0.86031

----- aar=2021 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	0	.	.	.	.	.
GEBVredprot	18393	107.00116	7.45355	1968072	72.61645	133.26841
p_ss	18393	115.07828	9.83702	2116635	72.78228	151.35444
p_ss_snp	18393	113.74946	8.59378	2092194	77.41315	144.22386
p_ss_snp2005	18393	110.39234	8.55438	2030446	73.81119	142.03915
p_ss_snp2010	18393	108.50351	8.28711	1995705	73.27666	139.03780
p_ss_red	18393	121.97455	8.58289	2243478	85.59547	152.82571
p_ss_red_snp	18393	119.49033	7.24064	2197786	85.46568	145.49416
p_ss_red_snp2005	18393	113.32037	6.94891	2084302	82.74052	137.51498
p_ss_red_snp2010	18393	110.51081	6.58461	2032625	81.20127	132.94866

Pearson Correlation Coefficients

Prob > |r| under H0: Rho=0

Number of Observations

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	.	.	.	.	.	.	.	.	.	.
	0	0	0	0	0	0	0	0	0	0
GEBVredprot	.	1.00000	0.86815	0.87028	0.86319	0.86194	0.79666	0.78890	0.78085	0.77383
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	0	18393	18393	18393	18393	18393	18393	18393	18393	18393
p_ss	.	0.86815	1.00000	0.98108	0.96794	0.96237	0.86576	0.83240	0.82694	0.81287
		<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	0	18393	18393	18393	18393	18393	18393	18393	18393	18393
p_ss_snp	.	0.87028	0.98108	1.00000	0.99075	0.98598	0.85822	0.86369	0.86291	0.85006
		<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
	0	18393	18393	18393	18393	18393	18393	18393	18393	18393
p_ss_snp2005	.	0.86319	0.96794	0.99075	1.00000	0.99629	0.83521	0.84816	0.87347	0.86140

----- aar=2010 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	1034	99.8665377	8.3669232	71.0000000	126.0000000
GEBVredprot	1034	97.1197035	8.2928828	72.6524621	122.8896521
p_ss	1034	100.5301389	10.4441050	72.4997267	134.0633336
p_ss_snp	1034	100.0350770	9.5287356	75.4172631	129.1380014
p_ss_snp2005	1034	99.7350224	9.5376812	72.3302967	128.5927566
p_ss_snp2010	1034	99.2961006	9.3316532	73.0748573	127.3984972
p_ss_red	1034	100.9750001	10.2941410	72.9001035	135.5370252
p_ss_red_snp	1034	100.3697767	9.1907869	73.2011700	130.2706124
p_ss_red_snp2005	1034	99.9808560	9.0885160	70.8864170	129.6420893
p_ss_red_snp2010	1034	99.4854892	8.8185447	71.9981574	128.8379514

----- aar=2011 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	1580	99.3291139	8.6741323	71.0000000	134.0000000
GEBVredprot	1580	96.7163407	8.6441191	66.7117592	126.6417071
p_ss	1580	100.9049717	10.6366775	65.0165878	140.4924868
p_ss_snp	1580	100.3419428	9.8006907	65.9033897	136.1469449
p_ss_snp2005	1580	99.4998697	9.7244002	65.7045911	136.2115248
p_ss_snp2010	1580	98.9976469	9.5257453	65.0209940	133.7898077
p_ss_red	1580	101.5813514	10.4507559	64.8935230	140.0742702
p_ss_red_snp	1580	100.8602697	9.4773799	66.8533790	134.2922888
p_ss_red_snp2005	1580	99.8132784	9.2920409	66.7655895	133.5689406
p_ss_red_snp2010	1580	99.2737411	9.0570225	66.3005382	130.9965434

----- aar=2012 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	2421	100.4609665	8.8611782	69.0000000	133.0000000
GEBVredprot	2421	97.9753665	8.7109523	66.0802283	131.6957381
p_ss	2421	102.8357652	10.5999260	66.6935891	143.9621885
p_ss_snp	2421	102.1103967	9.7807233	68.9228630	139.1014448
p_ss_snp2005	2421	100.8757235	9.7587502	69.5711639	135.5142572
p_ss_snp2010	2421	100.1607636	9.6249012	69.7942345	134.6582262
p_ss_red	2421	103.4986940	10.2725257	66.6123868	139.9850547
p_ss_red_snp	2421	102.6040163	9.3347745	69.5443217	134.9188775

p_ss_red_snp2005	2421	101.0898368	9.2328522	70.4125087	130.3008282
p_ss_red_snp2010	2421	100.3343722	9.0701085	70.6279207	129.7076450

----- aar=2013 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	3796	99.9776080	8.4414608	72.0000000	139.0000000
GEBVredprot	3796	97.6679894	8.3878774	69.9429509	131.6548331
p_ss	3796	102.7352531	9.9252822	69.9210495	141.9467000
p_ss_snp	3796	101.9385645	9.0972075	72.0522028	138.1933518
p_ss_snp2005	3796	100.4314465	9.1274063	70.7841537	136.9151893
p_ss_snp2010	3796	99.5139816	8.9499787	70.1859600	134.8519023
p_ss_red	3796	103.5734808	9.6118320	72.7203980	141.9477955
p_ss_red_snp	3796	102.5695305	8.6620535	75.6761954	137.4572011
p_ss_red_snp2005	3796	100.7300853	8.5808224	72.7014665	135.7306275
p_ss_red_snp2010	3796	99.7149363	8.3812052	72.0863781	132.8923503

----- aar=2014 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	4241	102.2409809	9.2994943	67.0000000	139.0000000
GEBVredprot	4241	99.9380832	9.1157890	62.5218585	131.2928711
p_ss	4241	105.5711736	10.7768941	63.0488460	144.8104796
p_ss_snp	4241	104.7514466	9.9728781	65.2865259	139.2932955
p_ss_snp2005	4241	102.9978854	9.9970775	64.3187557	137.5420905
p_ss_snp2010	4241	101.8986825	9.7663745	63.6421765	135.5328924
p_ss_red	4241	106.5707517	10.5282674	64.8334300	144.4458292
p_ss_red_snp	4241	105.4883184	9.5988137	67.3460184	138.9661289
p_ss_red_snp2005	4241	103.3143248	9.5365780	66.3971434	137.7580084
p_ss_red_snp2010	4241	102.0919209	9.2732547	66.3602279	135.2136188

----- aar=2015 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	5267	102.6058477	9.1039669	35.0000000	135.0000000
GEBVredprot	5267	100.3982256	8.9113107	28.3077161	131.8215041
p_ss	5267	106.5527790	10.5152933	45.4009734	145.6651488
p_ss_snp	5267	105.6789517	9.6740056	53.3659501	141.5187629
p_ss_snp2005	5267	103.7601753	9.6703836	52.4287436	139.2948550
p_ss_snp2010	5267	102.5881381	9.4637129	51.6561578	138.2068717
p_ss_red	5267	108.4263527	10.0153526	45.5886927	141.3041694
p_ss_red_snp	5267	107.1793119	8.9748954	53.1151662	137.9942771
p_ss_red_snp2005	5267	104.4709018	8.8376447	51.5732158	136.4021574
p_ss_red_snp2010	5267	103.0537624	8.5887230	50.3052464	134.9320633

----- aar=2016 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	8034	102.6417725	8.9328172	70.0000000	137.0000000
GEBVredprot	8034	100.6475842	8.8109060	67.7912714	134.5529861
p_ss	8034	107.1518432	10.4236251	63.6415909	143.1521663
p_ss_snp	8034	106.1869428	9.5284310	66.8643696	139.3124805
p_ss_snp2005	8034	104.0819385	9.5048485	67.1029645	137.7659838
p_ss_snp2010	8034	102.8292022	9.2953654	66.8769730	136.4263014
p_ss_red	8034	111.4165208	9.1699525	63.8037749	148.4860165
p_ss_red_snp	8034	109.5073925	7.9683814	68.1506734	139.1707293

p_ss_red_snp2005	8034	105.5829087	7.7104313	67.7561921	131.2409702
p_ss_red_snp2010	8034	103.7603204	7.4393889	67.9520175	128.5501391

----- aar=2017 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	11759	103.3452675	8.4360063	67.0000000	143.0000000
GEBVredprot	11759	101.2305949	8.6111948	69.2848709	139.1360021
p_ss	11759	108.2598492	10.1543649	75.5063764	146.4560367
p_ss_snp	11759	107.2041604	9.2971359	77.3984408	145.0743949
p_ss_snp2005	11759	104.6221866	9.3034379	73.1299155	142.6660479
p_ss_snp2010	11759	103.1998623	9.0938801	72.5000767	140.0874039
p_ss_red	11759	114.1849834	8.8883557	79.8920490	149.0404270
p_ss_red_snp	11759	111.9870078	7.6935833	81.6511661	140.7627761
p_ss_red_snp2005	11759	107.1498764	7.4958644	79.0893151	136.3573888
p_ss_red_snp2010	11759	105.1134935	7.2373124	77.2720043	132.6671059

----- aar=2018 -----

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	16254	102.8486526	8.1097942	68.0000000	139.0000000
GEBVredprot	16254	100.8206861	8.4173631	68.6845151	134.0095031
p_ss	16254	106.9362124	10.2841787	69.8559926	153.7589935
p_ss_snp	16254	105.8494791	9.4568240	71.2393956	149.7107854
p_ss_snp2005	16254	103.1468536	9.3908438	68.9291660	146.7792872
p_ss_snp2010	16254	101.7062794	9.1491847	67.9828009	144.1920872
p_ss_red	16254	115.8095265	8.7120275	76.5407328	156.6556064
p_ss_red_snp	16254	113.5388219	7.5055289	75.8136613	142.1374350
p_ss_red_snp2005	16254	108.1194201	7.2381330	73.9645823	137.1632247
p_ss_red_snp2010	16254	105.8778370	6.9310620	75.8579701	133.2427304

----- aar=2019 -----

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	2666	104.7854464	7.6460458	75.0000000	132.0000000
GEBVredprot	2666	102.9011535	8.2206278	74.3515091	131.1302771
p_ss	2666	109.9145342	10.0809608	76.8693824	146.5134398
p_ss_snp	2666	108.8787524	9.1378384	79.9487753	142.9768278
p_ss_snp2005	2666	106.0294711	9.0363350	77.2086112	141.0028408
p_ss_snp2010	2666	104.4533438	8.8026557	76.3542306	138.9440903
p_ss_red	2666	118.5464400	8.6452874	90.6100157	147.3644503
p_ss_red_snp	2666	116.2556279	7.3313741	93.3536690	138.0134584
p_ss_red_snp2005	2666	110.4492295	7.0633946	87.6273387	132.5328659
p_ss_red_snp2010	2666	108.0310448	6.7811319	87.0645038	128.8379514

----- aar=2010 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	1034	99.86654	8.36692	103262	71.00000	126.00000
GEBVredprot	1034	97.11970	8.29288	100422	72.65246	122.88965
p_ss	1034	100.53014	10.44410	103948	72.49973	134.06333
p_ss_snp	1034	100.03508	9.52874	103436	75.41726	129.13800
p_ss_snp2005	1034	99.73502	9.53768	103126	72.33030	128.59276
p_ss_snp2010	1034	99.29610	9.33165	102672	73.07486	127.39850
p_ss_red	1034	100.97500	10.29414	104408	72.90010	135.53703
p_ss_red_snp	1034	100.36978	9.19079	103782	73.20117	130.27061
p_ss_red_snp2005	1034	99.98086	9.08852	103380	70.88642	129.64209
p_ss_red_snp2010	1034	99.48549	8.81854	102868	71.99816	128.83795

Pearson Correlation Coefficients, N = 1034

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.80124	0.80655	0.81973	0.82484	0.82746	0.81170	0.82671	0.83708	0.84224
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.80124	1.00000	0.90659	0.90781	0.90111	0.89525	0.88749	0.88944	0.88233	0.87355
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.80655	0.90659	1.00000	0.99357	0.98256	0.97558	0.97868	0.97095	0.95924	0.95006
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.81973	0.90781	0.99357	1.00000	0.99132	0.98517	0.97790	0.98323	0.97402	0.96559
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.82484	0.90111	0.98256	0.99132	1.00000	0.99567	0.96189	0.97042	0.98153	0.97505
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.82746	0.89525	0.97558	0.98517	0.99567	1.00000	0.95381	0.96305	0.97604	0.97924
							<.0001	<.0001	<.0001	<.0001

----- aar=2011 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	1580	99.32911	8.67413	156940	71.00000	134.00000
GEBVredprot	1580	96.71634	8.64412	152812	66.71176	126.64171
p_ss	1580	100.90497	10.63668	159430	65.01659	140.49249
p_ss_snp	1580	100.34194	9.80069	158540	65.90339	136.14694
p_ss_snp2005	1580	99.49987	9.72440	157210	65.70459	136.21152
p_ss_snp2010	1580	98.99765	9.52575	156416	65.02099	133.78981
p_ss_red	1580	101.58135	10.45076	160499	64.89352	140.07427
p_ss_red_snp	1580	100.86027	9.47738	159359	66.85338	134.29229
p_ss_red_snp2005	1580	99.81328	9.29204	157705	66.76559	133.56894
p_ss_red_snp2010	1580	99.27374	9.05702	156853	66.30054	130.99654

Pearson Correlation Coefficients, N = 1580

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.80010	0.81380	0.82674	0.83308	0.83389	0.82734	0.84022	0.85280	0.85612
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.80010	1.00000	0.91558	0.91697	0.91672	0.91226	0.89452	0.89678	0.89697	0.89112
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.81380	0.91558	1.00000	0.99328	0.98144	0.97401	0.97739	0.96848	0.95565	0.94683
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.82674	0.91697	0.99328	1.00000	0.99001	0.98354	0.97720	0.98167	0.97100	0.96302
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.83308	0.91672	0.98144	0.99001	1.00000	0.99584	0.96039	0.96752	0.98051	0.97459
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.83389	0.91226	0.97401	0.98354	0.99584	1.00000	0.95097	0.95943	0.97501	0.97868
							<.0001	<.0001	<.0001	<.0001

----- aar=2012 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	2421	100.46097	8.86118	243216	69.00000	133.00000
GEBVredprot	2421	97.97537	8.71095	237198	66.08023	131.69574
p_ss	2421	102.83577	10.59993	248965	66.69359	143.96219
p_ss_snp	2421	102.11040	9.78072	247209	68.92286	139.10144
p_ss_snp2005	2421	100.87572	9.75875	244220	69.57116	135.51426
p_ss_snp2010	2421	100.16076	9.62490	242489	69.79423	134.65823
p_ss_red	2421	103.49869	10.27253	250570	66.61239	139.98505
p_ss_red_snp	2421	102.60402	9.33477	248404	69.54432	134.91888
p_ss_red_snp2005	2421	101.08984	9.23285	244738	70.41251	130.30083
p_ss_red_snp2010	2421	100.33437	9.07011	242910	70.62792	129.70764

Pearson Correlation Coefficients, N = 2421

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.81316	0.81498	0.83053	0.83555	0.83835	0.81708	0.83467	0.84279	0.84646
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.81316	1.00000	0.90534	0.91036	0.90875	0.90703	0.88471	0.89091	0.88674	0.88253
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.81498	0.90534	1.00000	0.99122	0.97825	0.97184	0.97570	0.96432	0.94761	0.93911
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.83053	0.91036	0.99122	1.00000	0.99076	0.98560	0.97318	0.98032	0.96863	0.96135
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.83555	0.90875	0.97825	0.99076	1.00000	0.99645	0.95635	0.96762	0.97830	0.97264
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.83835	0.90703	0.97184	0.98560	0.99645	1.00000	0.94884	0.96146	0.97401	0.97680
							<.0001	<.0001	<.0001	<.0001

----- aar=2013 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	3796	99.97761	8.44146	379515	72.00000	139.00000
GEBVredprot	3796	97.66799	8.38788	370748	69.94295	131.65483
p_ss	3796	102.73525	9.92528	389983	69.92105	141.94670
p_ss_snp	3796	101.93856	9.09721	386959	72.05220	138.19335
p_ss_snp2005	3796	100.43145	9.12741	381238	70.78415	136.91519
p_ss_snp2010	3796	99.51398	8.94998	377755	70.18596	134.85190
p_ss_red	3796	103.57348	9.61183	393165	72.72040	141.94780
p_ss_red_snp	3796	102.56953	8.66205	389354	75.67620	137.45720
p_ss_red_snp2005	3796	100.73009	8.58082	382371	72.70147	135.73063
p_ss_red_snp2010	3796	99.71494	8.38121	378518	72.08638	132.89235

Pearson Correlation Coefficients, N = 3796

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.79095	0.79622	0.81475	0.82379	0.82538	0.79228	0.81382	0.82886	0.83230
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.79095	1.00000	0.89474	0.89930	0.90359	0.90203	0.86696	0.87371	0.87814	0.87412
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.79622	0.89474	1.00000	0.99046	0.97737	0.97018	0.97170	0.95947	0.94336	0.93338
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.81475	0.89930	0.99046	1.00000	0.99027	0.98422	0.96861	0.97711	0.96524	0.95656
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.82379	0.90359	0.97737	0.99027	1.00000	0.99678	0.95024	0.96313	0.97559	0.96997
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.82538	0.90203	0.97018	0.98422	0.99678	1.00000	0.94126	0.95542	0.97130	0.97368
							<.0001	<.0001	<.0001	<.0001

----- aar=2014 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	4241	102.24098	9.29949	433604	67.00000	139.00000
GEBVredprot	4241	99.93808	9.11579	423837	62.52186	131.29287
p_ss	4241	105.57117	10.77689	447727	63.04885	144.81048
p_ss_snp	4241	104.75145	9.97288	444251	65.28653	139.29330
p_ss_snp2005	4241	102.99789	9.99708	436814	64.31876	137.54209
p_ss_snp2010	4241	101.89868	9.76637	432152	63.64218	135.53289
p_ss_red	4241	106.57075	10.52827	451967	64.83343	144.44583
p_ss_red_snp	4241	105.48832	9.59881	447376	67.34602	138.96613
p_ss_red_snp2005	4241	103.31432	9.53658	438156	66.39714	137.75801
p_ss_red_snp2010	4241	102.09192	9.27325	432972	66.36023	135.21362

Pearson Correlation Coefficients, N = 4241

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.80867	0.79712	0.82020	0.83407	0.83714	0.79802	0.82422	0.84427	0.84959
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.80867	1.00000	0.90239	0.90881	0.91558	0.91392	0.88406	0.88993	0.89552	0.89084
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.79712	0.90239	1.00000	0.99085	0.97673	0.96981	0.97326	0.96074	0.94161	0.93149
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.82020	0.90881	0.99085	1.00000	0.99072	0.98518	0.97159	0.97859	0.96552	0.95719
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.83407	0.91558	0.97673	0.99072	1.00000	0.99750	0.95410	0.96723	0.97699	0.97175
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.83714	0.91392	0.96981	0.98518	0.99750	1.00000	0.94540	0.96037	0.97378	0.97482
							<.0001	<.0001	<.0001	<.0001

----- aar=2015 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	5267	102.60585	9.10397	540425	35.00000	135.00000
GEBVredprot	5267	100.39823	8.91131	528797	28.30772	131.82150
p_ss	5267	106.55278	10.51529	561213	45.40097	145.66515
p_ss_snp	5267	105.67895	9.67401	556611	53.36595	141.51876
p_ss_snp2005	5267	103.76018	9.67038	546505	52.42874	139.29485
p_ss_snp2010	5267	102.58814	9.46371	540332	51.65616	138.20687
p_ss_red	5267	108.42635	10.01535	571082	45.58869	141.30417
p_ss_red_snp	5267	107.17931	8.97490	564513	53.11517	137.99428
p_ss_red_snp2005	5267	104.47090	8.83764	550248	51.57322	136.40216
p_ss_red_snp2010	5267	103.05376	8.58872	542784	50.30525	134.93206

Pearson Correlation Coefficients, N = 5267

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.81551	0.80303	0.82296	0.83420	0.83623	0.74982	0.77662	0.79903	0.80350
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.81551	1.00000	0.89268	0.89997	0.90689	0.90570	0.84847	0.85854	0.87114	0.86785
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.80303	0.89268	1.00000	0.98975	0.97560	0.96843	0.93434	0.92149	0.90663	0.89630
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.82296	0.89997	0.98975	1.00000	0.99054	0.98475	0.93120	0.94142	0.93323	0.92457
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.83420	0.90689	0.97560	0.99054	1.00000	0.99742	0.91155	0.92812	0.94548	0.94062
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.83623	0.90570	0.96843	0.98475	0.99742	1.00000	0.90165	0.92023	0.94157	0.94386
							<.0001	<.0001	<.0001	<.0001

----- aar=2016 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	8034	102.64177	8.93282	824624	70.00000	137.00000
GEBVredprot	8034	100.64758	8.81091	808603	67.79127	134.55299
p_ss	8034	107.15184	10.42363	860858	63.64159	143.15217
p_ss_snp	8034	106.18694	9.52843	853106	66.86437	139.31248
p_ss_snp2005	8034	104.08194	9.50485	836194	67.10296	137.76598
p_ss_snp2010	8034	102.82920	9.29537	826130	66.87697	136.42630
p_ss_red	8034	111.41652	9.16995	895120	63.80377	148.48602
p_ss_red_snp	8034	109.50739	7.96838	879782	68.15067	139.17073
p_ss_red_snp2005	8034	105.58291	7.71043	848253	67.75619	131.24097
p_ss_red_snp2010	8034	103.76032	7.43939	833610	67.95202	128.55014

Pearson Correlation Coefficients, N = 8034

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.80587	0.79577	0.81792	0.82672	0.82774	0.63557	0.66582	0.68414	0.68198
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.80587	1.00000	0.89391	0.90103	0.90380	0.90168	0.80919	0.81904	0.82445	0.81421
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.79577	0.89391	1.00000	0.98776	0.97492	0.96857	0.87831	0.85930	0.84885	0.83404
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.81792	0.90103	0.98776	1.00000	0.99189	0.98683	0.87029	0.88299	0.88024	0.86722
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.82672	0.90380	0.97492	0.99189	1.00000	0.99760	0.84358	0.86387	0.88743	0.87811
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.82774	0.90168	0.96857	0.98683	0.99760	1.00000	0.83196	0.85448	0.88167	0.88095
							<.0001	<.0001	<.0001	<.0001

----- aar=2017 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	11759	103.34527	8.43601	1215237	67.00000	143.00000
GEBVredprot	11759	101.23059	8.61119	1190371	69.28487	139.13600
p_ss	11759	108.25985	10.15436	1273028	75.50638	146.45604
p_ss_snp	11759	107.20416	9.29714	1260614	77.39844	145.07439
p_ss_snp2005	11759	104.62219	9.30344	1230252	73.12992	142.66605
p_ss_snp2010	11759	103.19986	9.09388	1213527	72.50008	140.08740
p_ss_red	11759	114.18498	8.88836	1342701	79.89205	149.04043
p_ss_red_snp	11759	111.98701	7.69358	1316855	81.65117	140.76278
p_ss_red_snp2005	11759	107.14988	7.49586	1259975	79.08932	136.35739
p_ss_red_snp2010	11759	105.11349	7.23731	1236030	77.27200	132.66711

Pearson Correlation Coefficients, N = 11759

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.77691	0.78665	0.80302	0.80783	0.80881	0.61865	0.63917	0.65036	0.65071
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.77691	1.00000	0.89508	0.89501	0.89357	0.89097	0.80679	0.80563	0.80263	0.79352
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.78665	0.89508	1.00000	0.98922	0.97972	0.97484	0.85317	0.82958	0.82091	0.80735
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.80302	0.89501	0.98922	1.00000	0.99320	0.98929	0.84777	0.85063	0.84703	0.83516
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.80783	0.89357	0.97972	0.99320	1.00000	0.99770	0.82630	0.83324	0.85238	0.84263
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.80881	0.89097	0.97484	0.98929	0.99770	1.00000	0.81671	0.82533	0.84652	0.84521
							<.0001	<.0001	<.0001	<.0001

----- aar=2018 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	16254	102.84865	8.10979	1671702	68.00000	139.00000
GEBVredprot	16254	100.82069	8.41736	1638739	68.68452	134.00950
p_ss	16254	106.93621	10.28418	1738141	69.85599	153.75899
p_ss_snp	16254	105.84948	9.45682	1720477	71.23940	149.71079
p_ss_snp2005	16254	103.14685	9.39084	1676549	68.92917	146.77929
p_ss_snp2010	16254	101.70628	9.14918	1653134	67.98280	144.19209
p_ss_red	16254	115.80953	8.71203	1882368	76.54073	156.65561
p_ss_red_snp	16254	113.53882	7.50553	1845460	75.81366	142.13743
p_ss_red_snp2005	16254	108.11942	7.23813	1757373	73.96458	137.16322
p_ss_red_snp2010	16254	105.87784	6.93106	1720938	75.85797	133.24273

Pearson Correlation Coefficients, N = 16254

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.76434	0.77212	0.78951	0.79412	0.79499	0.53961	0.56658	0.58937	0.59288
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.76434	1.00000	0.88995	0.88797	0.88670	0.88415	0.75268	0.75876	0.76550	0.75775
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.77212	0.88995	1.00000	0.98802	0.97942	0.97476	0.79395	0.77236	0.77540	0.76246
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.78951	0.88797	0.98802	1.00000	0.99344	0.98957	0.78154	0.78969	0.79744	0.78625
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.79412	0.88670	0.97942	0.99344	1.00000	0.99772	0.76057	0.77288	0.80295	0.79376
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.79499	0.88415	0.97476	0.98957	0.99772	1.00000	0.75088	0.76482	0.79705	0.79653
							<.0001	<.0001	<.0001	<.0001

----- aar=2019 -----

The CORR Procedure

10 Variables: p_indeks GEBVredprot p_ss p_ss_snp p_ss_snp2005 p_ss_snp2010 p_ss_red
 p_ss_red_snp p_ss_red_snp2005 p_ss_red_snp2010

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
p_indeks	2666	104.78545	7.64605	279358	75.00000	132.00000
GEBVredprot	2666	102.90115	8.22063	274334	74.35151	131.13028
p_ss	2666	109.91453	10.08096	293032	76.86938	146.51344
p_ss_snp	2666	108.87875	9.13784	290271	79.94878	142.97683
p_ss_snp2005	2666	106.02947	9.03634	282675	77.20861	141.00284
p_ss_snp2010	2666	104.45334	8.80266	278473	76.35423	138.94409
p_ss_red	2666	118.54644	8.64529	316045	90.61002	147.36445
p_ss_red_snp	2666	116.25563	7.33137	309938	93.35367	138.01346
p_ss_red_snp2005	2666	110.44923	7.06339	294458	87.62734	132.53287
p_ss_red_snp2010	2666	108.03104	6.78113	288011	87.06450	128.83795

Pearson Correlation Coefficients, N = 2666

Prob > |r| under H0: Rho=0

	p_indeks	GEBVredprot	p_ss	p_ss_snp	p_ss_snp2005	p_ss_snp2010	p_ss_red	p_ss_red_snp	p_ss_red_snp2005	p_ss_red_snp2010
p_indeks	1.00000	0.73742	0.72838	0.74812	0.75719	0.76027	0.49033	0.50361	0.53144	0.53500
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
GEBVredprot	0.73742	1.00000	0.88766	0.88508	0.88791	0.88607	0.73622	0.72849	0.73947	0.73099
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss	0.72838	0.88766	1.00000	0.98909	0.97963	0.97473	0.79701	0.76572	0.76596	0.75183
				<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp	0.74812	0.88508	0.98909	1.00000	0.99229	0.98789	0.78555	0.77941	0.78462	0.77114
					<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2005	0.75719	0.88791	0.97963	0.99229	1.00000	0.99743	0.76235	0.76029	0.79057	0.77936
						<.0001	<.0001	<.0001	<.0001	<.0001
p_ss_snp2010	0.76027	0.88607	0.97473	0.98789	0.99743	1.00000	0.75135	0.75083	0.78314	0.78133
							<.0001	<.0001	<.0001	<.0001

