

STØTTET AF

Mælkeafgiftsfonden

Effect of old genotypes, Jersey 305 day model

10 January 2022 USN

The old Danish 305 day model for protein has been executed with Partial QP Single Step, where the amount of old genotypes in the reference have been changed. In all runs phenotypic data is the same. In reduced runs progeny after genomic tested bulls born after 2012 are without phenotypic data. Foreign information is not included.

- All genotypes of genomic tested animals included (p_ss_snp and p_ss_red_snp)
- Only genotypes of genomic tested animals born after 2004 included (p_ss_snp_2005 and p_ss_red_snp2005)
- Only genotypes of genomic tested animals born after 2009 included (p_ss_snp_2010 and p_ss_red_snp2010)
- Compared with official test day model without genomic information (p-indeks)
- Official two step model (GEBVredprot)

Table 1. VG bulls born 20016 or 2017 with min 50 progeny with phenotypes

p-indeks = trad TD gebvredprot = twostep p_ss_snp = with snp sol 2005= ref birth > 2004

VG bulls with daughters DNK > 49 by birth year

19:59 Thursda

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

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	24	108.8750000	5.6052188	97.0000000	120.0000000
GEBVredprot	24	108.6060533	6.0264234	95.8136930	119.6704220
p_ss_snp	24	110.9405879	6.4149061	97.1985510	123.8153686
p_ss_snp2005	24	109.1365346	6.4389467	95.0982841	122.1762947
p_ss_snp2010	24	107.9175476	6.2747409	94.2921924	120.6299743
p_ss_red_snp	24	111.8473980	4.4544173	100.4901078	118.8322533
p_ss_red_snp2005	24	108.1121885	4.5180222	95.9389762	115.1983597
p_ss_red_snp2010	24	106.7634685	4.4291939	94.9637217	115.1727909

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

Variable	N	Mean	Std Dev	Minimum	Maximum

p_indeks	17	107.7058824	9.0053089	96.0000000	121.0000000
GEBVredprot	17	109.0006104	8.1043562	95.4096390	120.6724720
p_ss_snp	17	111.8867303	8.2071528	92.4036392	122.5320921
p_ss_snp2005	17	109.8242150	8.2698356	90.2657530	120.5814534
p_ss_snp2010	17	108.6055160	8.0476459	89.5718767	119.1106037
p_ss_red_snp	17	114.9214716	5.9641255	101.2112466	122.5870203
p_ss_red_snp2005	17	110.8827621	5.9834481	98.0676811	120.0570208
p_ss_red_snp2010	17	109.6270599	5.7647026	97.6723552	118.5613318

p-indeks = trad TD gebvredprot = twostep p_ss_snp = with snp sol 2005= ref birth > 2004					

Table 2. Genotyped bulls born in 2020 or 2021 in Nordic countries

----- aar=2020 -----					
Variable	N	Mean	Std Dev	Minimum	Maximum

p_indeks	0	.	.	.	.
GEBVredprot	508	107.2395900	7.2227758	84.5215117	128.8116829
p_ss_snp	508	113.0104987	7.3486456	90.7157707	136.2180995
p_ss_snp2005	508	110.4972597	7.4158550	88.9433689	134.5534600
p_ss_snp2010	508	109.2644674	7.2151286	88.1023216	132.6628305
p_ss_red_snp	508	113.3617363	6.1271398	93.0594580	131.2810607
p_ss_red_snp2005	508	109.5370738	6.1318193	90.9686719	127.7766163
p_ss_red_snp2010	508	108.2258575	5.8989839	90.0681446	125.6774507

ad TD, gebvredprot = twostep, p_ss_snp = with snp sol, 2005= ref birth > 2004, 2010 = ref_birth > 200 5					

----- aar=2021 -----					
The MEANS Procedure					
Variable	N	Mean	Std Dev	Minimum	Maximum

p_indeks	0	.	.	.	.
GEBVredprot	340	109.6245462	6.1302459	88.7783120	127.6834722
p_ss_snp	340	114.1447381	5.6442000	94.3527550	128.4545249
p_ss_snp2005	340	111.7000147	5.7048538	91.8605942	127.0000973
p_ss_snp2010	340	110.4406571	5.5649901	90.8087574	125.8107789
p_ss_red_snp	340	114.5926129	5.0869814	98.0210922	129.3182710
p_ss_red_snp2005	340	110.7073542	5.0316423	95.6377268	125.3454146
p_ss_red_snp2010	340	109.4881965	4.8958275	94.7627428	124.6695019

Table 3. Genotyped types females born after 2017.

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

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	6686	102.4365839	7.3518335	70.0000000	129.0000000
GEBVredprot	10310	101.1946851	7.7081668	63.6200945	135.2905073
p_ss_snp	10310	105.1157447	7.3991945	76.1994810	136.5966288
p_ss_snp2005	10310	102.8722847	7.4062574	76.4611486	134.8084601
p_ss_snp2010	10310	101.8708028	7.2159878	77.0224589	132.9289178
p_ss_red_snp	10310	107.1295262	6.2916138	79.3981932	129.9456183
p_ss_red_snp2005	10310	103.7710188	6.0865153	78.0215563	127.1485454
p_ss_red_snp2010	10310	102.6257223	5.9279185	77.5057358	124.9376773

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

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	5215	104.2546500	6.9527672	80.0000000	130.0000000
GEBVredprot	12519	103.0919292	7.3206878	73.0773332	130.4318756
p_ss_snp	12519	107.8747211	7.2159427	82.0393819	131.3785089
p_ss_snp2005	12519	105.3360824	7.2347435	78.6947743	128.2532759
p_ss_snp2010	12519	104.2664818	7.0435874	78.0743542	126.7779273
p_ss_red_snp	12519	109.1615161	6.1541230	82.7125748	129.5288361
p_ss_red_snp2005	12519	105.2849563	5.9876397	79.8127744	123.9202489
p_ss_red_snp2010	12519	104.1570335	5.8305463	80.3980665	122.4776712

 = trad TD, gebvredprot = twostep, p_ss_snp = with snp sol, 2005= ref birth > 2004, 2010 = ref_
 Females by birthyear, genomic tested 19:5

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

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	3	111.0000000	15.0996689	97.0000000	127.0000000
GEBVredprot	14234	104.1979860	7.0530677	75.2048713	132.3855218
p_ss_snp	14234	109.3659073	7.1236776	80.9490933	136.9565420
p_ss_snp2005	14234	106.8282119	7.1664947	77.9926015	134.4318830
p_ss_snp2010	14234	105.7043243	6.9737542	77.2677695	131.9180291
p_ss_red_snp	14234	110.5540000	5.9893734	86.0263353	130.5636486
p_ss_red_snp2005	14234	106.7339933	5.9259290	84.6430569	127.0125778
p_ss_red_snp2010	14234	105.4981994	5.7482283	84.5067104	124.8374933

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

Variable	N	Mean	Std Dev	Minimum	Maximum
p_indeks	0	.	.	.	.
GEBVredprot	8678	105.8843961	6.6168830	81.9423008	129.5803459
p_ss_snp	8678	110.8626405	6.2875648	85.8097823	135.3927814
p_ss_snp2005	8678	108.3819796	6.3368317	83.2267545	133.1101224
p_ss_snp2010	8678	107.2198831	6.1444689	82.7800290	131.1088321
p_ss_red_snp	8678	111.3995061	5.4912836	87.9208000	130.7891210
p_ss_red_snp2005	8678	107.5818876	5.4602887	84.9617701	127.0886698
p_ss_red_snp2010	8678	106.4025272	5.2693016	84.7541160	124.9938781

= trad TD, gebvredprot = twostep, p_ss_snp = with snp sol, 2005= ref birth > 2004, 2010 = ref_