Table S1. Marker effects ($\hat{b}_j$) and their posterior probabilities (PP) of SNPs associated with growth traits with the use of genome-wide association (GWA) as well as a chromosome-wide association (CWA) in simmental and simbrah cattle.

Model	Chr[a]	Pos[b]	SNPs[c]	BW[d]				WWD[e]				WWM[f]				YW[g]			
				GWA		CWA		GWA		CWA		GWA		CWA		GWA		CWA	
				$\hat{b}_j$	PP	$\hat{b}_j$	PP	$\hat{b}_j$	PP	$\hat{b}_j$	PP	$\hat{b}_j$	PP	$\hat{b}_j$	PP	$\hat{b}_j$	PP	$\hat{b}_j$	PP
Joint	1	6,952,436	BovineHD0100002043			-0.026	0.129												
Joint	1	17,148,366	BovineHD0100005053	0.012	0.066	0.068	0.301												
Joint	1	18,258,818	BovineHD0100005339	-0.040	0.240														
Joint	1	24,168,476	ARS-BFGL-BAC-6737									0.034	0.043	0.126	0.128				
Joint	1	41,455,680	Hapmap23514-BTA-150593					-0.097	0.098			0.083	0.127						
Joint	1	49,567,103	BovineHD0100014058			0.014	0.061												
Joint	1	49,634,079	BovineHD0100014071			0.013	0.053												
Joint	1	50,665,945	BovineHD0100014362	-0.010	0.071	-0.016	0.107												
Joint	1	53,241,119	ARS-BFGL-NGS-94761					0.042	0.029	1.713	0.621			-0.112	0.092				
Joint	1	54,038,526	BTB-00217542															0.803	0.351
Joint	1	58,000,696	ARS-BFGL-NGS-40337					0.139	0.150			-0.037	0.065						
Joint	1	78,127,259	BovineHD0100022657			-0.016	0.064												
Joint	1	115,897,261	BovineHD0100033028											0.088	0.130				
Joint	1	118,821,328	BovineHD0100033867					-0.105	0.106										
Joint	1	118,912,426	BovineHD0100033896					-0.116	0.125	-0.623	0.451					-0.089	0.101	-0.466	0.424
Joint	1	119,151,202	BovineHD4100000688													-0.045	0.046		
Joint	1	131,680,356	BovineHD0100037820					0.058	0.060										
Joint	1	147,542,196	BovineHD0100043239									-0.029	0.054						
Joint	1	155,615,450	ARS-BFGL-NGS-54653	0.017	0.111	0.078	0.408												
Joint	1	157,593,001	BovineHD0100012784													0.044	0.040		
Joint	1	157,605,027	BovineHD1100023814													0.034	0.054		
Joint	2	6,912,773	BovineHD0200002005					0.048	0.032	0.284	0.200								
Joint	2	13,346,155	BTA-20457-no-rs									0.036	0.053						
Joint	2	13,367,301	BovineHD4100001011					-0.042	0.034			0.090	0.110	0.337	0.313				
Joint	2	28,366,129	BovineHD0200008331							0.190	0.148								
Joint	2	30,228,551	BovineHD0200008901							0.238	0.184								
Joint	2	57,203,290	BovineHD0200016269			-0.014	0.054												
Joint	2	92,668,354	BovineHD0200026560							-0.106	0.100								
Joint	2	94,636,270	Hapmap50979-BTA-48487													-0.132	0.152		
Joint	2	122,900,223	BovineHD0200035799			-0.013	0.090												
Joint	2	133,487,750	BovineHD0200039106									0.054	0.068	0.187	0.169				
Joint	3	328,058	BovineHD0300000063									0.045	0.080						

Joint	3	15,763,689	BovineHD4100001879			-0.016	0.094												
Joint	3	34,241,835	BovineHD0300035533			0.014	0.102												
Joint	3	43,071,852	BovineHD0300013160	-0.008	0.038	-0.028	0.102												
Joint	3	71,037,098	BovineHD0300020955			-0.013	0.053												
Joint	3	73,463,469	BovineHD0300021473	-0.020	0.112	-0.053	0.259												
Joint	3	101,605,832	BovineHD0300029255													-0.036	0.045		
Joint	4	10,025,067	BovineHD0400003025					-0.037	0.043										
Joint	4	34,087,094	BovineHD0400009726	0.016	0.101														
Joint	4	39,299,282	BTB-01780264					0.044	0.037	0.361	0.170								
Joint	4	45,694,800	BovineHD0400012548					0.095	0.088			-0.203	0.245						
Joint	4	48,070,266	BovineHD0400013290					0.107	0.073	1.844	0.838			-0.701	0.473				
Joint	4	52,341,148	BovineHD0400014536			-0.151	0.412												
Joint	4	52,350,959	BovineHD0400014539	0.007	0.045														
Joint	4	53,943,257	BovineHD0400014943													-0.043	0.045		
Joint	4	54,668,072	BovineHD0400015064													0.160	0.155	0.964	0.660
Joint	4	88,650,637	BovineHD0400024784	0.011	0.074														
Joint	4	111,112,243	BovineHD0400032138													0.057	0.074	0.279	0.261
Joint	4	112,844,573	BovineHD0400032781					-0.039	0.029			0.047	0.070						
Joint	5	4,559,923	ARS-BFGL-NGS-41385							0.829	0.632	-0.029	0.050	-0.246	0.303				
Joint	5	8,878,483	BTB-00218987	0.044	0.251	0.097	0.482												
Joint	5	28,142,436	BovineHD0500008288													0.126	0.131	0.573	0.458
Joint	5	37,375,959	BovineHD0500010721											-0.055	0.052				
Joint	5	43,173,154	BovineHD0500012424													-0.037	0.048	-0.274	0.211
Joint	5	43,254,214	BTB-01477571													-0.047	0.064	-0.683	0.548
Joint	5	46,106,048	BovineHD0500013307			-0.035	0.219												
Joint	5	47,114,993	BovineHD0500013676	0.008	0.037	0.056	0.155												
Joint	5	47,920,992	BovineHD0500013910					-0.152	0.172			0.084	0.136	0.072	0.096				
Joint	5	109,153,222	ARS-BFGL-NGS-16738									0.032	0.054	0.106	0.146				
Joint	5	109,639,214	BovineHD0500031760									-0.035	0.063	-0.085	0.116				
Joint	5	109,676,735	BovineHD0500031776									-0.040	0.056	-0.063	0.087				
Joint	6	206,650	BovineHD0600000030	0.009	0.045														
Joint	6	22,449,056	BovineHD0600006577	0.009	0.054														
Joint	6	24,537,233	BovineHD4100004318	-0.008	0.057	-0.106	0.543												
Joint	6	31,922,816	Hapmap27500-BTC-032985	0.012	0.075														
Joint	6	35,575,862	BovineHD4100004463							0.318	0.211								
Joint	6	42,770,292	BovineHD0600012095							-0.125	0.103								
Joint	6	66,299,180	ARS-BFGL-NGS-72592							-0.194	0.138								
Joint	6	73,018,262	BovineHD0600020776													-0.035	0.049		

Joint	6	86,762,457	BovineHD0600024201													0.033	0.044		
Joint	6	111,363,016	BovineHD0600033010	-0.009	0.062														
Joint	6	112,448,301	BovineHD0600033358					-0.042	0.057										
Joint	7	7,011,872	BovineHD0700002043													0.043	0.053	0.076	0.058
Joint	7	10,456,355	BovineHD0700002995															0.098	0.078
Joint	7	10,619,615	BovineHD0700003030													0.034	0.035	0.319	0.250
Joint	7	18,446,391	BovineHD0700005476					0.131	0.112										
Joint	7	20,673,981	BovineHD0700006039					-0.077	0.069	-0.305	0.205								
Joint	7	26,294,867	BovineHD0700007673															0.077	0.093
Joint	7	71,945,283	BovineHD0700021817			0.015	0.053												
Joint	7	73,180,407	BovineHD0700022161			-0.019	0.110												
Joint	7	73,197,856	BovineHD0700022164	-0.046	0.269	-0.112	0.552												
Joint	7	73,286,379	BovineHD0700022183	-0.017	0.108	-0.028	0.131												
Joint	7	102,495,062	BovineHD0700030660															0.121	0.138
Joint	7	102,564,741	BovineHD0700030692													0.059	0.077	0.183	0.186
Joint	7	105,857,552	BTB-00115134															0.203	0.133
Joint	8	6,189,677	ARS-BFGL-NGS-104101													0.107	0.140		
Joint	8	8,989,368	BovineHD0800002828	-0.021	0.142														
Joint	8	11,078,911	BovineHD0800003578	-0.015	0.095														
Joint	8	60,290,538	ARS-BFGL-NGS-112663					0.043	0.048										
Joint	8	67,033,400	ARS-BFGL-NGS-100986			-0.087	0.270												
Joint	8	84,579,963	BovineHD0800025526															-0.550	0.201
Joint	8	105,641,396	BovineHD0800032157					-0.046	0.042			0.068	0.085	0.116	0.143				
Joint	9	11,997,198	ARS-BFGL-NGS-57235													0.044	0.051	0.290	0.302
Joint	9	17,288,971	BovineHD0900004742			0.013	0.079												
Joint	9	33,787,578	BovineHD0900009384													0.049	0.053	0.306	0.302
Joint	9	38,735,093	BovineHD0900010916	0.007	0.050														
Joint	9	60,827,498	BTB-00397480					0.259	0.225	0.793	0.476	-0.037	0.063						
Joint	9	67,744,737	BovineHD0900019004															-0.183	0.151
Joint	9	68,870,505	BovineHD0900019298															-0.141	0.132
Joint	9	70,289,809	BovineHD0900019735			0.008	0.053												
Joint	9	88,192,486	BovineHD0900025200	-0.008	0.044														
Joint	9	94,143,252	BovineHD4100007685			0.007	0.040												
Joint	10	8,127,430	BovineHD1000002661													-0.157	0.178		
Joint	10	62,797,711	BovineHD1000018187					0.278	0.272										
Joint	10	62,841,361	BovineHD1000018212					0.041	0.033										
Joint	10	62,884,887	BovineHD1000018235					0.046	0.053										
Joint	10	66,652,170	ARS-BFGL-NGS-119477	-0.021	0.138														

Joint	10	67,686,585	BovineHD1000019457					0.047	0.048										
Joint	10	73,845,211	BovineHD1000021104													-0.056	0.073		
Joint	10	86,431,884	BovineHD1000024739	-0.007	0.049														
Joint	10	100,924,131	ARS-BFGL-NGS-3343	0.010	0.072														
Joint	11	23,992,969	BovineHD1100007232	-0.022	0.155														
Joint	11	24,662,197	BovineHD1100007434													0.038	0.028	0.440	0.234
Joint	11	35,039,180	BovineHD1100010338					-0.141	0.130	-0.695	0.518	0.055	0.056	0.140	0.156				
Joint	11	52,029,467	BovineHD1100015270											0.184	0.177				
Joint	11	54,076,261	BovineHD1100015725									-0.042	0.064	-0.278	0.347				
Joint	11	64,511,310	BovineHD1100018285													0.066	0.087	0.335	0.337
Joint	11	65,438,305	BovineHD1100018470									0.029	0.032						
Joint	11	65,466,018	BovineHD1100018476					-0.141	0.123	-0.286	0.175	0.029	0.046						
Joint	11	65,476,648	BovineHD1100018479					-0.544	0.448	-1.242	0.794	0.333	0.405	0.941	0.907				
Joint	11	88,018,340	ARS-BFGL-BAC-16207					-0.126	0.105										
Joint	11	92,059,776	BovineHD1100026733	-0.011	0.076														
Joint	11	93,632,997	BovineHD1100027287					0.039	0.031										
Joint	11	98,859,170	ARS-BFGL-NGS-1504													0.040	0.040		
Joint	11	98,929,180	BovineHD1100028767					0.117	0.119	0.200	0.170								
Joint	12	9,614,438	BovineHD1200002648	0.017	0.100	0.075	0.317												
Joint	12	14,939,312	BovineHD1200004459					-0.055	0.067										
Joint	12	19,910,693	BovineHD1200006022													0.045	0.064		
Joint	12	24,453,018	BovineHD1200007354					-0.198	0.188	-0.403	0.226								
Joint	12	56,034,163	ARS-BFGL-NGS-104509									-0.031	0.032						
Joint	12	56,683,360	BovineHD1200015726					0.046	0.052			-0.104	0.149	-0.198	0.230				
Joint	12	56,939,408	BovineHD1200028035					-0.069	0.080	-0.509	0.410								
Joint	12	58,592,180	BovineHD1200016189	-0.011	0.065														
Joint	12	59,106,604	BovineHD1200016310					-0.101	0.098			0.059	0.096						
Joint	12	65,399,981	BovineHD1200018025									-0.054	0.091						
Joint	13	1,007,186	BovineHD1300000145	0.020	0.135														
Joint	13	1,055,763	BovineHD1300000159	-0.010	0.067														
Joint	13	3,792,105	BovineHD4100009863					0.045	0.046			-0.059	0.074						
Joint	13	16,380,572	BovineHD1300004626															0.035	0.051
Joint	13	73,129,519	BovineHD4100010407									-0.031	0.042						
Joint	13	78,533,511	BovineHD1300022916									0.034	0.055						
Joint	14	22,518	BovineHD0600000008	0.007	0.044														
Joint	14	13,328,209	BovineHD1400004176									0.054	0.070						
Joint	14	23,607,944	BovineHD4100011295	-0.010	0.065														
Joint	14	28,344,330	BovineHD1400024444	-0.017	0.087														

Joint	14	28,438,412	BovineHD1400008725	-0.017	0.085														
Joint	14	41,275,153	Hapmap42426-BTA-110900			0.031	0.151												
Joint	14	67,912,806	BovineHD1400019721	0.009	0.076	0.071	0.326												
Joint	15	2,854,992	BovineHD1500000701									0.041	0.061						
Joint	15	4,857,417	Hapmap42143-BTA-23359	0.008	0.047														
Joint	15	18,637,239	Hapmap44329-BTA-98197									-0.103	0.132	-0.226	0.221				
Joint	15	36,609,370	ARS-BFGL-NGS-108699															0.185	0.210
Joint	15	41,077,053	BovineHD1500011406	0.008	0.061														
Joint	15	52,246,245	BovineHD1500015330					0.058	0.049	0.637	0.427								
Joint	15	55,414,359	BovineHD1500016269					0.044	0.039										
Joint	15	65,140,618	ARS-BFGL-NGS-29708													0.056	0.052	1.403	0.742
Joint	15	65,148,971	BovineHD1500018910															0.329	0.224
Joint	15	68,479,023	BTB-00612553					-0.296	0.233										
Joint	15	72,473,829	Hapmap47929-BTA-37615	-0.011	0.080														
Joint	15	83,228,283	BovineHD1500024815	0.009	0.062														
Joint	16	11,761,343	BovineHD1600003306			-0.095	0.347												
Joint	16	14,177,173	BovineHD1600004027	0.014	0.102														
Joint	16	69,421,830	BTB-00658688	0.067	0.394														
Joint	16	72,830,063	BovineHD1600021349	0.012	0.076														
Joint	16	76,408,519	ARS-BFGL-NGS-30589													-0.035	0.031		
Joint	17	54,907,144	BovineHD1700016212	0.007	0.031														
Joint	17	63,860,049	ARS-BFGL-NGS-94330					0.053	0.066	0.801	0.563								
Joint	17	63,950,062	ARS-BFGL-BAC-36611			0.093	0.180												
Joint	17	65,618,037	BovineHD1700019693					-0.054	0.047										
Joint	18	4,772,831	BovineHD1800001433	0.023	0.144														
Joint	18	6,864,571	BTA-42870-no-rs									-0.032	0.062						
Joint	18	7,691,780	BTA-44411-no-rs													-0.071	0.076		
Joint	18	20,659,854	BTA-42769-no-rs									0.039	0.052						
Joint	18	46,276,728	Hapmap50691-BTA-43520	-0.028	0.187														
Joint	18	46,311,016	BovineHD1800013676	-0.007	0.044														
Joint	19	18,623,450	BovineHD1900005438					0.037	0.051										
Joint	19	20,134,133	BovineHD1900005935	-0.010	0.070														
Joint	19	36,467,014	BovineHD1900010762					-0.494	0.428	-1.608	0.964								
Joint	19	59,245,784	UA-IFASA-8216					0.039	0.032										
Joint	19	62,556,282	BovineHD1900018249					0.049	0.056			-0.098	0.129						
Joint	20	17,591,241	BovineHD2000005310													-0.286	0.287	-1.276	0.914
Joint	20	22,651,571	BTA-95455-no-rs															0.288	0.221
Joint	20	26,706,016	BovineHD2000007953															-0.168	0.160

Joint	20	48,820,669	BovineHD2000013587	0.015	0.099												
Joint	20	60,637,163	BovineHD2000017040									-0.088	0.137				
Joint	21	33,958,935	BovineHD2100009841	-0.007	0.058												
Joint	21	39,874,490	BovineHD2100011516					-0.141	0.150	-0.983	0.601						
Joint	21	46,971,798	ARS-BFGL-NGS-19437	-0.011	0.073												
Joint	22	6,983,538	BovineHD2200002151	-0.205	0.750	-0.252	0.860										
Joint	22	7,005,226	Hapmap57734-rs29023397	-0.040	0.164												
Joint	22	7,615,852	BovineHD2200002310									0.032	0.052				
Joint	22	8,374,341	BovineHD2200002533													-0.045	0.045
Joint	22	32,091,984	ARS-BFGL-NGS-68862													0.034	0.048
Joint	22	32,279,858	BovineHD2200009264													0.078	0.086	0.647	0.482
Joint	22	49,836,856	ARS-BFGL-NGS-15965													-0.094	0.083
Joint	23	16,132,392	BovineHD2300004168	0.008	0.051												
Joint	24	3,673,081	BovineHD2400001090					0.039	0.041								
Joint	24	21,855,713	BovineHD2400005992													-0.062	0.065
Joint	24	45,599,385	BovineHD2400012691					0.049	0.056			-0.043	0.055				
Joint	24	45,625,444	BovineHD2400012696									-0.047	0.063				
Joint	25	24,586,554	BovineHD2500007018									0.037	0.055				
Joint	25	27,159,249	BovineHD2500007661													-0.034	0.044
Joint	25	30,331,706	Hapmap27064-BTC-028223					-0.092	0.088								
Joint	26	26,877,456	BovineHD2600007223					-0.089	0.103			0.073	0.108				
Joint	26	41,389,219	ARS-BFGL-NGS-27004	-0.007	0.047												
Joint	27	3,993,708	BovineHD2700000961	-0.010	0.066												
Joint	27	4,209,953	BovineHD2700001041	-0.077	0.414												
Joint	28	4,045,281	BTB-00974697													0.040	0.051
Joint	28	12,534,832	BovineHD2800003638	-0.010	0.058												
Joint	28	26,661,955	ARS-BFGL-NGS-1594					0.050	0.049								
Joint	29	39,734,672	Hapmap58798-rs29016922	0.022	0.126	0.166	0.682										
Joint	29	41,063,582	BovineHD2900012617	0.158	0.664	0.087	0.338										
Joint	29	42,093,690	BovineHD2900012868					-0.087	0.055								
Joint	29	44,308,524	BovineHD2900013427													-0.090	0.105
Joint	29	45,254,795	BovineHD2900013642													-0.089	0.109
Joint	29	45,294,962	BovineHD2900013649													-0.050	0.062
Joint	29	46,630,938	BovineHD2900014007													0.048	0.072
Joint	29	46,700,354	ARS-BFGL-NGS-18176													0.057	0.085
Simbrah	1	17,148,366	BovineHD0100005053	0.071	0.259	0.259	0.750										
Simbrah	1	24,168,476	ARS-BFGL-BAC-6737					-0.096	0.066	-1.930	0.848	0.117	0.119	1.459	0.900		
Simbrah	1	50,665,945	BovineHD0100014362	-0.015	0.056												

Simbrah	1	77,723,763	BovineHD0100022553													0.060	0.056	0.218	0.168
Simbrah	1	105,630,169	Hapmap27036-BTA-163250			-0.075	0.259												
Simbrah	1	105,655,281	BovineHD0100030188			-0.066	0.241												
Simbrah	1	113,227,837	Hapmap55381-rs29025399	0.014	0.067														
Simbrah	1	130,520,535	BTA-51376-no-rs			-0.041	0.135												
Simbrah	1	144,528,438	ARS-BFGL-NGS-76373	-0.020	0.097														
Simbrah	2	2,434,950	BovineHD0200000670	0.014	0.071														
Simbrah	2	57,203,290	BovineHD0200016269			-0.089	0.189												
Simbrah	2	59,904,495	BovineHD0200017150							-0.225	0.146								
Simbrah	2	83,004,959	BovineHD0200023844			-0.055	0.190												
Simbrah	2	121,510,489	BovineHD0200030201	0.030	0.138														
Simbrah	2	126,956,287	BovineHD0200037022					0.195	0.126	0.524	0.272	-0.171	0.150	-0.163	0.134				
Simbrah	2	126,959,242	ARS-BFGL-NGS-75279					0.343	0.210	0.974	0.476	-0.166	0.149	-0.185	0.157				
Simbrah	3	43,733,400	BovineHD0300013378							0.357	0.228			-0.109	0.111				
Simbrah	3	50,662,691	BovineHD0300015419			0.086	0.274												
Simbrah	3	52,416,306	ARS-BFGL-NGS-83439					-0.119	0.084	-0.183	0.102			0.114	0.103				
Simbrah	3	52,416,878	BovineHD0300015876					-0.084	0.072	-0.212	0.113								
Simbrah	3	52,417,560	BovineHD0300015877					-0.135	0.096	-0.219	0.123								
Simbrah	3	52,418,852	BovineHD0300015878					-0.129	0.099	-0.239	0.152								
Simbrah	3	52,419,897	BovineHD0300015879					-0.104	0.074										
Simbrah	3	79,022,233	BovineHD0300022871					-0.106	0.096	-0.573	0.368	0.180	0.200	0.803	0.687				
Simbrah	3	95,913,981	BovineHD0300027678			-0.127	0.332												
Simbrah	3	97,394,480	BovineHD0300028111											-0.186	0.166				
Simbrah	4	5,031,881	BovineHD0400001381			0.056	0.092												
Simbrah	4	31,991,755	BovineHD0400009179									-0.046	0.052						
Simbrah	4	53,098,825	BovineHD0400014726					-0.226	0.171			0.297	0.291	0.267	0.236				
Simbrah	4	54,668,072	BovineHD0400015064													0.080	0.056	1.044	0.569
Simbrah	5	6,592,231	BovineHD0500001781			-0.016	0.049												
Simbrah	5	12,104,374	ARS-BFGL-NGS-29426											0.329	0.276				
Simbrah	5	13,013,473	BovineHD0500003932			0.016	0.074												
Simbrah	5	13,022,277	BovineHD0500003937			0.022	0.104												
Simbrah	5	19,431,606	ARS-BFGL-NGS-116388					0.069	0.055										
Simbrah	5	23,023,551	BovineHD0500006748							1.457	0.725								
Simbrah	5	47,920,992	BovineHD0500013910					-0.127	0.107										
Simbrah	5	48,404,403	BovineHD0500014027													-0.073	0.069		
Simbrah	5	61,740,946	BovineHD0500017392											0.286	0.195				
Simbrah	5	64,043,861	BovineHD0500018000			-0.059	0.184												
Simbrah	5	103,845,399	BovineHD0500029816			-0.022	0.072												

Simbrah	5	109,058,472	ARS-BFGL-NGS-63306	-0.014	0.047														
Simbrah	6	26,061,286	BovineHD0600007586			0.084	0.228												
Simbrah	6	66,299,180	ARS-BFGL-NGS-72592					-0.118	0.098										
Simbrah	6	73,481,332	ARS-BFGL-NGS-101891															0.646	0.323
Simbrah	6	100,695,560	BovineHD0600028510	-0.025	0.110	-0.160	0.551												
Simbrah	6	112,861,438	BovineHD0600033525									0.046	0.062						
Simbrah	7	467,956	BovineHD0700000069	-0.018	0.087														
Simbrah	7	53,143,975	BovineHD0700015866			0.057	0.210												
Simbrah	7	60,601,468	BovineHD0700018057	0.015	0.072														
Simbrah	7	60,660,405	BovineHD0700018070			0.069	0.221												
Simbrah	7	60,688,281	BovineHD0700018078			0.074	0.222												
Simbrah	7	68,783,389	BovineHD0700020842			-0.094	0.287												
Simbrah	7	71,945,283	BovineHD0700021817			0.208	0.595												
Simbrah	7	94,642,456	BovineHD0700028320	-0.024	0.105	-0.093	0.309												
Simbrah	7	95,124,226	BovineHD0700028470	0.019	0.097														
Simbrah	7	96,746,068	BovineHD0700029014	0.047	0.193														
Simbrah	7	102,529,075	BovineHD0700030669													0.194	0.170	1.027	0.694
Simbrah	7	105,411,287	BovineHD0700031468			0.080	0.252												
Simbrah	8	11,078,911	BovineHD0800003578	-0.016	0.076	-0.113	0.370												
Simbrah	8	21,572,629	BovineHD0800006587	0.027	0.106	0.080	0.248												
Simbrah	8	53,884,363	BovineHD0800016303			-0.044	0.177												
Simbrah	8	107,236,795	ARS-BFGL-NGS-41550							-0.415	0.240								
Simbrah	9	49,257,679	BTB-02006579					0.070	0.055										
Simbrah	9	71,359,980	BovineHD0900020122	-0.025	0.076														
Simbrah	10	7,799,488	BTA-118104-no-rs													0.080	0.080		
Simbrah	10	64,816,309	ARS-BFGL-NGS-62905			-0.080	0.210												
Simbrah	10	100,924,131	ARS-BFGL-NGS-3343	0.073	0.288	0.091	0.345												
Simbrah	11	155,522	BovineHD1100000016							0.911	0.470								
Simbrah	11	23,992,969	BovineHD1100007232	-0.020	0.103	0.254	0.792												
Simbrah	11	47,008,188	ARS-BFGL-NGS-40907					0.373	0.253	0.525	0.318	-0.143	0.152						
Simbrah	11	66,281,456	BovineHD1100018735													0.541	0.241	2.662	0.903
Simbrah	12	2,618,638	BTB-01103269					0.080	0.056										
Simbrah	12	31,449,808	BovineHD1200009267	0.016	0.045														
Simbrah	13	37,243,918	BovineHD1300010845													0.113	0.107		
Simbrah	13	80,054,531	BovineHD1300023400	-0.028	0.141														
Simbrah	14	14,586,053	BovineHD1400004575	-0.028	0.111	-0.136	0.410												
Simbrah	14	22,341,542	BovineHD4100011291			-0.085	0.182												
Simbrah	14	25,259,499	BovineHD4100011361													0.061	0.046		

Simbrah	15	6,233,678	BovineHD1500001629					0.073	0.062			-0.088	0.076						
Simbrah	15	72,473,829	Hapmap47929-BTA-37615	-0.052	0.218														
Simbrah	16	73,010,856	BovineHD1600021426					0.084	0.064										
Simbrah	17	62,581,666	BovineHD1700018671			-0.144	0.428												
Simbrah	18	25,185,199	BovineHD1800007788	-0.016	0.071														
Simbrah	19	3,880,877	BovineHD1900000960													0.283	0.238		
Simbrah	19	21,849,452	BovineHD1900006407	0.016	0.068														
Simbrah	20	16,815,306	BovineHD2000005088													0.091	0.070		
Simbrah	20	17,591,241	BovineHD2000005310													-0.263	0.220	-0.695	0.503
Simbrah	20	35,259,879	BovineHD2000010095					-0.136	0.111	-0.418	0.246								
Simbrah	21	59,162,526	ARS-BFGL-NGS-16275	0.034	0.104														
Simbrah	21	62,121,957	BovineHD2100018719	-0.026	0.117														
Simbrah	21	66,284,836	BovineHD2100019902					0.093	0.076										
Simbrah	22	11,083,535	BovineHD2200003294					0.090	0.080										
Simbrah	22	33,432,901	BovineHD2200009669					-0.102	0.078			0.086	0.093						
Simbrah	23	15,783,127	BovineHD2300004035			0.151	0.499												
Simbrah	24	3,673,081	BovineHD2400001090													0.255	0.222		
Simbrah	24	4,051,421	BovineHD2400001180									0.047	0.059						
Simbrah	24	4,074,679	BovineHD2400001190									0.110	0.122						
Simbrah	24	14,964,805	BovineHD2400004198													-0.153	0.152		
Simbrah	24	32,576,870	BTB-01623856	-0.015	0.072														
Simbrah	24	53,702,809	BovineHD2400015420													-0.203	0.197		
Simbrah	24	59,990,135	BovineHD2400017485									0.054	0.051						
Simbrah	24	61,732,249	BovineHD2400018109			-0.093	0.276												
Simbrah	27	31,269,649	BTB-00966795					-0.099	0.064	-1.434	0.527								
Simmental	1	4,615,149	BTB-00002966							0.974	0.573								
Simmental	1	30,449,967	ARS-BFGL-NGS-14285															0.652	0.267
Simmental	1	39,638,269	BovineHD0100011262									0.089	0.083						
Simmental	1	115,487,178	BTA-108007-no-rs									0.056	0.061						
Simmental	1	155,461,258	ARS-BFGL-NGS-39036							-0.232	0.117								
Simmental	2	20,637,894	ARS-BFGL-NGS-27536			-0.031	0.077												
Simmental	2	24,759,987	BTB-00083874			0.023	0.070												
Simmental	2	32,163,209	ARS-BFGL-NGS-77689											-0.294	0.273				
Simmental	3	8,271,067	BovineHD0300002718											0.250	0.215				
Simmental	3	11,445,314	BTA-26230-no-rs													-0.110	0.097		
Simmental	3	96,214,989	BovineHD0300027779											-0.277	0.171				
Simmental	3	99,860,543	BovineHD0300028809											-0.192	0.123				
Simmental	4	10,025,067	BovineHD0400003025					-0.089	0.067										

Simmental	4	82,072,066	BovineHD0400022891											-0.109	0.099				
Simmental	4	114,805,260	BovineHD0400033491											0.134	0.124				
Simmental	5	12,192,068	BovineHD0500003615													0.114	0.096	0.947	0.576
Simmental	5	27,758,354	BovineHD0500008183															0.399	0.190
Simmental	5	68,696,282	BovineHD0500019361															-0.560	0.361
Simmental	5	99,889,487	BovineHD0500028730															0.432	0.232
Simmental	5	113,010,737	BovineHD0500032783															0.234	0.155
Simmental	6	12,002,585	BovineHD0600003405													-0.087	0.074		
Simmental	7	92,877,894	BovineHD0700027753	0.022	0.105														
Simmental	8	3,229,083	BovineHD0800001007													0.103	0.079		
Simmental	8	6,189,677	ARS-BFGL-NGS-104101													0.079	0.062		
Simmental	8	40,320,705	BovineHD0800012081							-0.268	0.140								
Simmental	8	78,200,098	BovineHD0800023786									-0.058	0.067						
Simmental	8	78,299,132	BovineHD0800023822									-0.108	0.118						
Simmental	9	21,845,628	BovineHD0900005901													-0.120	0.073	-3.039	0.967
Simmental	9	52,842,486	BovineHD0900014769															-0.860	0.430
Simmental	9	60,827,498	BTB-00397480					0.335	0.225			-0.255	0.225						
Simmental	10	9,243,642	ARS-BFGL-NGS-5218													0.098	0.068		
Simmental	10	45,764,666	BovineHD1000013758	-0.011	0.054														
Simmental	10	52,771,028	ARS-BFGL-NGS-14607	0.035	0.148	0.148	0.462												
Simmental	10	55,739,309	BovineHD1000016562					0.251	0.141										
Simmental	10	62,870,803	Hapmap53237-rs29021167					0.069	0.054										
Simmental	10	66,578,924	BovineHD1000019217			0.037	0.133												
Simmental	10	76,421,733	BovineHD1000021867					0.079	0.052										
Simmental	10	77,297,598	BovineHD1000022170													0.074	0.067		
Simmental	11	24,662,197	BovineHD1100007434													0.244	0.113	2.737	0.875
Simmental	11	65,014,198	BovineHD1100018385															0.822	0.508
Simmental	11	65,438,305	BovineHD1100018470					-0.114	0.092			0.054	0.052						
Simmental	11	65,466,018	BovineHD1100018476					-0.244	0.171	-1.345	0.675	0.057	0.062						
Simmental	11	65,476,648	BovineHD1100018479					-0.134	0.102	-0.342	0.182	0.088	0.075	0.525	0.423				
Simmental	11	67,895,920	BovineHD1100019193			0.045	0.123												
Simmental	11	76,334,598	BovineHD1100021866					-0.104	0.077	-1.358	0.683								
Simmental	11	80,850,526	BovineHD1100023198													0.112	0.097		
Simmental	11	85,981,496	BovineHD1100024691			-0.067	0.209												
Simmental	11	98,094,178	BovineHD1100028536													-0.589	0.338	-1.833	0.821
Simmental	11	98,222,190	BovineHD1100028591													-0.249	0.177		
Simmental	11	104,173,821	BovineHD1100030298															0.607	0.323
Simmental	12	84,848,183	BTB-00508549									0.082	0.084						

Simmental	13	35,025,679	BovineHD1300010246	-0.017	0.096												
Simmental	13	49,369,652	BovineHD1300014404											0.230	0.151	1.800	0.831
Simmental	14	16,336,431	BovineHD1400005136													6.288	0.846
Simmental	14	23,539,175	BTB-00559128									-0.056	0.064				
Simmental	14	23,540,117	BovineHD1400007305									-0.092	0.088				
Simmental	14	23,548,867	BovineHD1400007308									-0.064	0.066				
Simmental	14	23,550,648	BovineHD1400007309									-0.070	0.066				
Simmental	15	31,588,113	BovineHD1500008710									-0.085	0.098				
Simmental	15	36,609,370	ARS-BFGL-NGS-108699											0.079	0.059		
Simmental	16	62,275,255	BovineHD1600017881													0.981	0.593
Simmental	16	73,216,135	BovineHD1600021470	-0.012	0.065												
Simmental	17	5,895,955	BTB-01002430							0.419	0.250						
Simmental	17	41,889,885	BovineHD1700011883	-0.049	0.245												
Simmental	17	63,860,049	ARS-BFGL-NGS-94330							1.126	0.641						
Simmental	18	5,082,859	BovineHD1800001572	0.027	0.106												
Simmental	18	8,845,340	BovineHD1800003058	0.021	0.094												
Simmental	18	60,918,681	ARS-BFGL-NGS-11218	0.024	0.130												
Simmental	21	36,357,577	BovineHD2100010794					-0.221	0.153	-1.308	0.590						
Simmental	21	41,969,536	BovineHD2100012081	-0.011	0.050												
Simmental	21	42,032,839	BovineHD2100012099	-0.133	0.543	-0.161	0.609										
Simmental	21	42,043,390	Hapmap42487-BTA-26592	-0.019	0.085												
Simmental	22	6,983,538	BovineHD2200002151	-0.011	0.056												
Simmental	23	17,791,358	BovineHD2300004479									0.117	0.128				
Simmental	25	19,912,086	BovineHD2500005568	-0.047	0.212												
Simmental	25	24,586,554	BovineHD2500007018									0.142	0.141				
Simmental	25	24,613,223	ARS-BFGL-NGS-97895									0.065	0.066				
Simmental	25	30,331,706	Hapmap27064-BTC-028223					-0.262	0.158			0.160	0.136				
Simmental	25	40,152,700	BovineHD2500011470											0.070	0.048		
Simmental	27	7,754,398	BovineHD2700002124									0.061	0.082				
Simmental	27	11,205,123	BovineHD2700003046									0.147	0.158				
Simmental	27	18,808,741	BovineHD2700005194							0.339	0.205						
Simmental	27	26,428,979	BovineHD2700007194													1.071	0.307
Simmental	27	39,714,460	BovineHD2700011482							-0.222	0.150						
Simmental	28	12,352,710	BovineHD2800003602											0.092	0.087		
Simmental	28	33,405,318	BovineHD2800009010											0.075	0.058		
Simmental	28	33,588,312	BovineHD2800009062											0.227	0.179	0.909	0.471
Simmental	28	33,608,386	BovineHD2800009066											0.140	0.129		
Simmental	28	42,051,760	BovineHD2800011945	-0.016	0.079												

Simmental	29	7,859,363	BovineHD2900002232							-0.081	0.086			
Simmental	29	41,063,582	BovineHD2900012617	0.016	0.071									
Simmental	29	45,254,795	BovineHD2900013642									-0.072	0.069	

[a] Chromosome; [b] Position; [c] single nucleotide polymorphism; [d] birth weight; [e] weaning weight direct; [f] weaning weight maternal; [g] yearly weight.