

Table S1 Accuracy of genomic prediction in simulated data estimated with different methods, where PLS is Partial Least Squares, BayesSSVS is Bayesian Stochastic Search Variable Selection, RR-BLUP is Ridge Regression, and BLUP (GBLUP) is (Genomic) Best Linear Unbiased Prediction.

Method	Trait 1							
	All Generations		Generation 6		Generation 8		Generation 10	
	cor	se	cor	se	cor	se	cor	se
Mean Genomic	0.449	0.002	0.551	0.003	0.418	0.003	0.360	0.002
PLS	0.431	0.011	0.530	0.011	0.398	0.016	0.348	0.015
BayesSSVS	0.449	0.013	0.550	0.014	0.419	0.019	0.361	0.016
BayesC	0.452	0.013	0.554	0.013	0.422	0.018	0.362	0.016
BayesB1	0.451	0.013	0.553	0.012	0.420	0.018	0.362	0.016
BayesA1	0.453	0.013	0.555	0.013	0.422	0.018	0.363	0.016
Lasso1	0.453	0.013	0.555	0.013	0.422	0.018	0.363	0.016
Lasso2	0.453	0.013	0.555	0.013	0.422	0.018	0.363	0.016
RR-BLUP	0.453	0.013	0.555	0.013	0.422	0.018	0.363	0.016
GBLUP	0.448	0.013	0.552	0.013	0.418	0.018	0.352	0.017
BLUP	0.290	0.014	0.440	0.020	0.212	0.025	0.110	0.023

Method	Trait 2							
	All Generations		Generation 6		Generation 8		Generation 10	
	cor	se	cor	se	cor	se	cor	se
Mean Genomic	0.483	0.017	0.580	0.012	0.447	0.019	0.401	0.022
PLS	0.424	0.011	0.527	0.014	0.387	0.021	0.331	0.016
BayesSSVS	0.517	0.027	0.603	0.020	0.489	0.040	0.448	0.029
BayesC	0.542	0.027	0.624	0.020	0.511	0.038	0.481	0.030
BayesB1	0.544	0.027	0.624	0.021	0.517	0.038	0.482	0.029
BayesA1	0.539	0.028	0.621	0.021	0.510	0.038	0.472	0.031
Lasso1	0.447	0.013	0.558	0.012	0.405	0.023	0.352	0.017
Lasso2	0.447	0.013	0.557	0.012	0.405	0.023	0.351	0.016
RR-BLUP	0.447	0.016	0.558	0.013	0.405	0.026	0.354	0.020
GBLUP	0.437	0.011	0.551	0.010	0.392	0.021	0.337	0.019
BLUP	0.297	0.016	0.463	0.011	0.206	0.030	0.099	0.019

Method	Trait 3							
	All Generations		Generation 6		Generation 8		Generation 10	
	cor	se	cor	se	cor	se	cor	se
Mean Genomic	0.386	0.003	0.484	0.005	0.339	0.002	0.306	0.003
PLS	0.366	0.009	0.447	0.016	0.325	0.018	0.304	0.018
BayesSSVS	0.378	0.010	0.480	0.015	0.333	0.021	0.290	0.016
BayesC	0.390	0.010	0.490	0.015	0.343	0.020	0.308	0.017
BayesB1	0.383	0.009	0.483	0.015	0.338	0.020	0.298	0.015
BayesA1	0.388	0.010	0.488	0.015	0.342	0.020	0.305	0.018
Lasso1	0.390	0.010	0.490	0.015	0.342	0.020	0.309	0.018
Lasso2	0.390	0.010	0.490	0.015	0.342	0.020	0.309	0.018
RR-BLUP	0.390	0.010	0.490	0.015	0.342	0.020	0.309	0.018
GBLUP	0.398	0.010	0.497	0.014	0.347	0.019	0.323	0.017
BLUP	0.257	0.010	0.406	0.015	0.160	0.025	0.094	0.028

Method	Trait 4							
	All Generations		Generation 6		Generation 8		Generation 10	
	cor	se	cor	se	cor	se	cor	se
Mean Genomic	0.448	0.016	0.559	0.013	0.409	0.016	0.339	0.021
PLS	0.391	0.017	0.507	0.018	0.350	0.028	0.273	0.012

BayesSSVS	0.480	0.014	0.586	0.012	0.442	0.027	0.381	0.018
BayesC	0.505	0.017	0.604	0.011	0.470	0.031	0.413	0.023
BayesB1	0.504	0.016	0.605	0.012	0.466	0.029	0.416	0.022
BayesA1	0.495	0.019	0.596	0.014	0.458	0.033	0.402	0.023
Lasso1	0.412	0.017	0.532	0.018	0.372	0.027	0.289	0.014
Lasso2	0.411	0.017	0.532	0.018	0.372	0.027	0.289	0.014
RR-BLUP	0.413	0.017	0.533	0.018	0.373	0.027	0.290	0.014
GBLUP	0.418	0.016	0.537	0.018	0.376	0.027	0.298	0.013
BLUP	0.287	0.017	0.449	0.019	0.204	0.027	0.043	0.029
