Table S1. F_{ST} by locus for genetic markers and design and GenTrain score for SNPs.

Locus Name	Chromosome	GenTrain Score	Design Score	F_{ST}
Intergenic SNPs				
AANG02081894.1:g.2454A>G	A1	0.831	0.967	0.174
AANG02022644.1:g.3760A>G	A1	0.629	0.851	0.233
AANG02181414.1:g.9179T>C	A1	0.907	0.872	0.178
AANG02030050.1:g.10031T>C	A1	0.797	0.908	0.110
ACBE01036013.1:g.1072C>G	A1	0.880	1.000	0.160
AANG02120735.1:g.19978T>C	A1	0.935	0.979	0.237
AANG02120735.1:g.13757A>G	A1	0.773	0.911	0.276
AANG02120833.1:g.6832T>G	A1	0.904	0.934	0.126
AANG02177503.1:g.23931A>G	A1	0.902	0.953	0.040
AANG02006746.1:g.1306A>C	A1	< 0.55	0.952	-
ACBE01005699.1:g.2382T>G	A1	0.712	0.980	0.204
AANG02037247.1:g.11010T>C	A1	0.629	0.953	0.127
AANG02166291.1:g.8238A>G	A1	0.846	0.950	0.126
AANG02081688.1:g.7877A>G	A1	0.933	0.976	0.206
AANG02081797.1:g.1220T>G	A1	0.907	0.900	0.206
AANG02020671.1:g.14924T>C	A2	0.775	0.941	0.240
AANG02087650.1:g.3448T>C	A2	< 0.55	0.909	-
AANG02051601.1:g.8552A>G	A2	0.905	0.967	0.170
ACBE01083214.1:g.5157T>C	A2	0.900	0.955	0.198
AANG02101261.1:g.28587T>G	A2	0.845	0.919	0.141
AANG02052780.1:g.12441A>G	A2	0.810	0.754	0.294
ACBE01063620.1:g.118A>G	A2	<0.55	0.977	-
AANG02061718.1:g.9337A>C	A3	0.901	0.949	0.225
AANG02187398.1:g.28581T>C	A3	0.801	0.847	0.129
AANG02187424.1:g.22252T>C	A3	0.872	0.941	0.262
ACBE01108034.1:g.1368T>C	A3	0.928	0.915	0.202
AANG02036114.1:g.12497C>G	A3	0.927	0.986	0.196
AANG02036285.1:g.31963C>G	A3	0.897	0.959	0.270
AANG02087356.1:g.3610A>G	A3	0.678	0.913	0.121
AANG02174216.1:g.5428A>G	A3	0.811	0.991	0.237
AANG02197631.1:g.6522T>G	A3	0.853	0.969	0.272
AANG02061850.1:g.28010A>T	A3	0.737	0.940	0.157
AANG02062344.1:g.17035A>G	B1	0.818	0.973	0.241
AANG02062220.1:g.3795A>C	B1	0.911	0.977	0.195
AANG02159024.1:g.5325T>C	B1	< 0.55	0.984	-
AANG02110774.1:g.16514A>G	B1	0.884	0.958	0.251
AANG02097822.1:g.16767A>G	B1	0.878	0.967	0.217

AANG02005724.1:g.13363A>G	B1	0.900	0.921	0.159
AANG02161484.1:g.11157A>G	B1	0.721	0.932	0.319
AANG02164255.1:g.41770A>G	B1	0.843	0.971	0.278
AANG02093085.1:g.3654T>C	B1	0.881	0.954	0.175
AANG02105885.1:g.26478A>G	B2	0.909	0.972	0.334
AANG02061345.1:g.16853T>C	B2	0.935	0.932	0.311
AANG02097349.1:g.10252T>G	B2	< 0.55	0.978	-
AANG02088421.1:g.6184A>G	B2	0.807	0.988	0.389
AC144403.2:g.77593T>C	B2	< 0.55	0.902	-
AANG02019366.1:g.2564T>C	B2	0.842	0.842	0.241
AANG02150144.1:g.23281A>G	B2	0.926	0.955	0.249
ACBE01207093.1:g.17436A>G	B3	0.829	0.924	0.384
AANG02038388.1:g.21548T>C	B3	0.845	0.970	0.195
AANG02169345.1:g.11780C>G	B3	0.888	0.949	0.206
AANG02123275.1:g.4383C>G	B3	< 0.55	0.930	-
AANG02112603.1:g.9588T>C	B3	0.899	0.910	0.125
AANG02118130.1:g.8421A>G	B3	0.716	0.960	0.455
AANG02073760.1:g.11396C>G	B3	0.820	0.814	0.317
AANG02184908.1:g.13943A>C	B3	0.901	0.945	0.143
AANG02137910.1:g.5589A>G	B4	0.886	0.936	0.192
AANG02149389.1:g.77394A>G	B4	0.666	0.953	0.179
AANG02149408.1:g.35260A>G	B4	0.896	0.915	0.337
AANG02149495.1:g.17781A>G	B4	0.925	0.906	0.309
AANG02149567.1:g.15163A>G	B4	0.940	0.978	0.438
AANG02149596.1:g.15359A>G	B4	0.870	0.965	0.355
AANG02149013.1:g.28134T>C	B4	0.856	0.992	0.259
AANG02044836.1:g.17276T>C	B4	0.880	0.992	0.152
AANG02168541.1:g.1719T>C	B4	0.890	0.983	0.292
AANG02168607.1:g.23958A>G	B4	0.893	0.929	0.322
AANG02019617.1:g.29641T>C	B4	0.831	0.964	0.150
AANG02005636.1:g.25248T>C	B4	0.924	0.935	0.509
AANG02134729.1:g.24161T>C	B4	0.863	0.981	0.266
AANG02166055.1:g.5358A>G	B4	0.928	0.923	0.237
AANG02039649.1:g.10186A>G	C1	< 0.55	0.909	-
AANG02109451.1:g.11395T>C	C1	0.669	0.924	0.195
AANG02133438.1:g.4486A>G	C1	0.820	0.940	0.307
AANG02154238.1:g.3420A>G	C1	0.901	0.954	0.156
AANG02154352.1:g.633T>C	C1	0.779	0.968	0.270
AANG02084206.1:g.590T>C	C1	< 0.55	0.940	-
AANG02084253.1:g.5598A>C	C1	0.863	0.956	0.283
AANG02084066.1:g.33920T>C	C1	0.947	0.958	0.273
AANG02057281.1:g.9879A>G	C1	< 0.55	0.957	-
AANG02057305.1:g.14414A>G	C1	0.870	0.987	0.258

AANG02080852.1:g.4118A>C	C1	0.937	0.901	0.223
AANG02123743.1:g.40048T>C	C1	0.855	0.937	0.436
AANG02071982.1:g.2223A>G	C1	0.713	0.976	0.180
AANG02125769.1:g.12122A>G	C1	0.921	0.982	0.163
AANG02163524.1:g.18377A>G	C1	0.900	0.987	0.202
AANG02154632.1:g.5397A>G	C2	0.882	0.983	0.309
AANG02186313.1:g.31437T>C	C2	0.897	0.990	0.234
AANG02167296.1:g.1656A>G	C2	0.748	0.976	0.270
AANG02130287.1:g.5088A>G	C2	0.844	0.944	0.248
AANG02044746.1:g.27100A>C	C2	0.721	0.936	0.278
AANG02044752.1:g.5418T>C	C2	0.853	0.981	0.367
AANG02051098.1:g.7586A>G	C2	0.822	0.958	0.463
AANG02044477.1:g.2607T>C	C2	< 0.55	0.947	-
ACBE01345396.1:g.1705A>G	D1	0.925	0.904	0.277
AANG02169674.1:g.3001A>G	D1	0.887	0.956	0.112
AANG02169695.1:g.95332A>G	D1	0.883	0.942	0.169
AANG02069063.1:g.7082A>G	D1	0.885	0.904	0.206
AANG02068998.1:g.30524T>C	D1	0.893	0.922	0.093
AANG02034297.1:g.8334A>G	D1	0.856	0.931	0.161
AANG02164541.1:g.9882A>G	D1	0.792	0.906	0.193
AANG02164558.1:g.6551A>G	D1	0.893	0.977	0.282
AANG02164599.1:g.1162A>G	D1	0.839	0.960	0.206
AANG02068755.1:g.12439A>G	D1	0.862	0.964	0.204
AANG02068729.1:g.23108A>G	D1	0.853	0.988	0.219
AANG02068687.1:g.24693A>G	D1	< 0.55	0.955	-
AANG02068592.1:g.3671T>C	D1	0.933	0.902	0.297
AANG02069109.1:g.15681A>G	D1	0.920	0.943	0.164
AANG02165803.1:g.11163T>C	D1	0.700	0.974	0.182
AANG02146076.1:g.16005T>C	D2	0.707	0.922	0.209
AANG02013100.1:g.17668A>G	D2	< 0.55	0.933	-
AANG02013375.1:g.9147T>C	D2	0.881	0.996	0.355
AANG02146030.1:g.8374T>C	D2	0.812	0.991	0.292
AANG02074459.1:g.18139A>G	D2	0.719	0.949	0.173
ACBE01354504.1:g.4064A>G	D2	0.881	0.932	0.287
ACBE01370662.1:g.6686T>C	D2	0.869	0.985	0.211
AANG02129584.1:g.52596T>C	D2	0.842	0.945	0.315
AANG02189205.1:g.41736T>C	D3	0.839	0.867	0.390
AANG02099526.1:g.3573A>C	D3	0.773	0.982	0.246
AANG02190254.1:g.15149T>G	D3	0.886	0.951	0.296
ACBE01548227.1:g.5881A>G	D3	0.706	0.930	0.184
AANG02138982.1:g.9768C>G	D3	0.882	0.901	0.313
AANG02139135.1:g.15518T>C	D3	0.892	0.968	0.390
AANG02090046.1:g.12669T>G	D4	0.838	0.840	0.217

AANG02123183.1:g.881C>G	D4	0.818	0.941	0.256
AANG02133034.1:g.9013A>G	D4	0.886	0.937	0.252
AANG02127496.1:g.2106T>G	E1	0.675	0.947	0.226
AANG02040272.1:g.36372T>C	E1	0.813	0.966	0.233
AANG02138305.1:g.9539T>G	E1	0.903	0.997	0.184
AANG02056745.1:g.5442T>G	E1	0.852	0.997	0.147
AANG02038152.1:g.8253A>C	E1	0.888	0.963	0.236
AANG02006368.1:g.37660A>T	E1	0.865	0.981	0.255
AANG02056567.1:g.19993A>G	E1	0.920	0.947	0.281
AANG02178402.1:g.625T>C	E2	0.870	0.989	0.261
AANG02102297.1:g.84944T>C	E2	0.652	0.994	0.279
AANG02018759.1:g.66755T>C	E2	0.906	0.834	0.299
AANG02018594.1:g.16310T>G	E2	0.927	0.968	0.141
AANG02018732.1:g.5275T>C	E2	0.793	0.989	0.247
ACBE01439500.1:g.2425A>G	E2	0.605	0.964	0.196
AANG02012103.1:g.5339A>G	E2	0.910	0.937	0.236
AANG02113241.1:g.2447T>G	E2	0.655	0.989	0.146
AANG02113786.1:g.2390A>G	E2	0.817	0.960	0.127
AANG02111523.1:g.27973T>C	E3	0.880	0.833	0.147
AANG02056486.1:g.3509A>G	E3	< 0.55	0.967	-
AANG02174563.1:g.7166A>G	E3	0.774	0.936	0.210
AANG02116920.1:g.18710T>C	E3	0.818	0.960	0.195
AANG02114656.1:g.10867A>G	F1	0.764	0.983	0.289
ACBE01126082.1:g.2249A>G	F1	0.875	0.937	0.166
AANG02076977.1:g.4968A>T	F1	0.839	0.951	0.180
AANG02111872.1:g.29014A>G	F1	0.912	0.929	0.409
AANG02180196.1:g.9264A>G	F1	0.930	0.993	0.153
ACBE01454403.1:g.9260A>G	F1	0.874	0.958	0.155
AANG02016788.1:g.2950A>C	F1	0.769	0.910	0.366
AANG02016731.1:g.10432T>G	F1	0.856	0.943	0.257
AANG02123462.1:g.6525A>G	F1	0.775	0.933	0.114
AANG02108795.1:g.15169A>G	F2	0.864	0.957	0.391
AANG02124578.1:g.6009A>G	F2	0.877	0.993	0.319
AANG02147808.1:g.9376T>C	F2	0.719	0.963	0.048
AANG02099314.1:g.7371T>C	F2	0.818	0.956	0.431
AANG02099008.1:g.2693T>C	F2	0.906	0.976	0.173
AANG02077182.1:g.15851T>C	F2	0.911	0.911	0.293
AANG02026094.1:g.43226C>G	F2	0.945	0.959	0.112
AANG02119614.1:g.37185A>G	F2	0.871	0.955	0.193
Phenotyic SNPs				
AANG02027250.1(FGF5):g.18442A>C	B1	0.856	0.772	0.646
AANG02171092.1(TYR):g.11026G>T	D1	0.855	0.829	0.822
AANG02171093.1(TYR):g.1802G>A	D1	0.855	0.780	0.559

AANG02185848.1(TYRP1):g.10736C>T	D4	0.841	0.933	0.339
AY804234S6(TYRP1):g.593G>A	D4	0.758	0.976	0.405
STRs				
FCA005	E1			0.201
FCA008	A1			0.263
FCA023	B2			0.228
FCA026	D3			0.274
FCA035	D2			0.298
FCA043	C2			0.250
FCA045	D2			0.202
FCA058	E2			0.274
FCA069	B4			0.758
FCA075	E2			0.251
FCA077	C2			0.295
FCA080B	A3			0.195
FCA088	B3			0.255
FCA090	A1			0.271
FCA094	F2			0.716
FCA096	E2			0.273
FCA097	B1			0.224
FCA105	A2			0.264
FCA123	A1			0.218
FCA126	B1			0.244
FCA132	D3			0.253
FCA149	B1			0.212
FCA211	B1			0.207
FCA220	F2			0.283
FCA223	F1			0.198
FCA224	A3			0.352
FCA229	A1			0.196
FCA262	D2			0.306
FCA293	C1			0.244
FCA305	B2			0.312
FCA310	C2			0.202
FCA391	B3			0.195
FCA441	D3			0.190
FCA453	A1			0.254
FCA628	E3			0.149
FCA649	C1			0.289
FCA678	A1			0.207
FCA698	D1			0.214