

Appendix D The 273 common SNPs between the top 1000 SNPs of MES10 and the top 1100 SNPs of MES20

Note: The chromosome names and positions were based on maize B73 reference genome version 3; The fourth and fifth columns were $-\log_{10}(P)$ of MES10 and MES20, respectively.

Marker	Chromosome	Position	MES10	MES20	SSH
chr1.S_11402753	1	11402753	3.578892	2.866355	
chr1.S_11477044	1	11477044	3.004835	3.90439	
chr1.S_12498912	1	12498912	2.776697	3.2829	
chr1.S_15169601	1	15169601	3.027036	2.868563	
chr1.S_17670522	1	17670522	3.901755	3.361953	
chr1.S_18199424	1	18199424	4.70847	4.278924	
chr1.S_18278976	1	18278976	3.088952	3.545039	
PZA00425.11	1	21468295	2.887304	3.056228	SSH
chr1.S_21469545	1	21469545	3.010803	2.906184	
chr1.S_21473673	1	21473673	3.737103	2.840726	
chr1.S_37202579	1	37202579	3.239274	2.99861	
chr1.S_37206644	1	37206644	3.483962	3.262127	
chr1.S_42807943	1	42807943	3.345429	3.144997	
chr1.S_47906997	1	47906997	4.327204	3.474945	
PZE-101067998	1	51400887	3.172647	4.43841	
chr1.S_65620809	1	65620809	2.791761	3.587376	
chr1.S_76615743	1	76615743	3.824701	2.788526	
chr1.S_90554411	1	90554411	3.287395	2.771729	
chr1.S_90554674	1	90554674	3.240311	2.830618	
chr1.S_142652311	1	142652311	3.855644	3.596192	
chr1.S_160809110	1	160809110	3.171421	3.232484	
chr1.S_171740815	1	171740815	3.030737	3.553512	SSH
chr1.S_171740832	1	171740832	3.043821	3.304919	
chr1.S_171740838	1	171740838	3.043821	3.304919	
chr1.S_173214348	1	173214348	2.967248	2.932047	
chr1.S_197603164	1	197603164	2.799885	3.085808	
chr1.S_197603165	1	197603165	2.78024	2.987852	
chr1.S_244562733	1	244562733	3.614364	4.14868	
chr1.S_244562857	1	244562857	3.291801	3.7497	
chr1.S_289235681	1	289235681	3.130753	3.045488	
chr1.S_293054619	1	293054619	3.393656	3.240342	
chr1.S_295062219	1	295062219	3.09236	2.792053	
SYNGENTA12924	1	296003899	2.899027	2.937471	
chr2.S_2048003	2	2048003	3.107079	2.799525	
chr2.S_5273095	2	5273095	3.207436	3.1961	
chr2.S_6176334	2	6176334	3.344549	2.740243	

chr2.S_6991843	2	6991843	3.302897	3.146148	
chr2.S_10210658	2	10210658	3.430872	3.272709	
chr2.S_18812592	2	18812592	2.904421	2.886945	
chr2.S_37329130	2	37329130	2.950298	3.566983	
chr2.S_41887180	2	41887180	3.58189	2.965623	
chr2.S_42357796	2	42357796	3.794433	2.93616	SSH
chr2.S_42357799	2	42357799	4.325183	3.547174	
chr2.S_42358509	2	42358509	3.104509	3.023726	
PZE-102098146	2	114767757	3.378372	4.447093	
PZE-102107573	2	136743327	3.475852	2.926601	
chr2.S_148503745	2	148503745	3.315712	2.797088	
chr2.S_174677483	2	174677483	3.247872	2.885342	SSH
chr2.S_174677570	2	174677570	3.502512	3.326225	
chr2.S_174677613	2	174677613	3.285949	2.821378	
chr2.S_174677615	2	174677615	3.285949	2.821378	
chr2.S_174677640	2	174677640	3.285949	2.821378	
chr2.S_174677663	2	174677663	3.285949	2.821378	
chr2.S_174678583	2	174678583	3.419242	3.217325	
chr2.S_174951107	2	174951107	3.061424	3.357265	
chr2.S_180526645	2	180526645	3.315896	2.846129	
chr2.S_188064017	2	188064017	3.107008	3.746172	
chr2.S_189500296	2	189500296	4.523376	2.919574	SSH
chr2.S_189500303	2	189500303	3.803402	3.279046	
chr2.S_189501008	2	189501008	3.345559	3.216457	
chr2.S_194910459	2	194910459	3.504345	3.277318	
chr2.S_220857480	2	220857480	3.505355	3.100336	
chr2.S_222879902	2	222879902	3.115306	3.020072	SSH
chr2.S_222879921	2	222879921	3.188889	3.20384	
chr2.S_222880075	2	222880075	2.820823	2.822869	
chr3.S_2630475	3	2630475	3.066202	3.275797	
chr3.S_4844477	3	4844477	3.276536	3.115411	
chr3.S_5884892	3	5884892	3.228632	2.964121	
chr3.S_9379406	3	9379406	4.373741	2.869877	
chr3.S_12189646	3	12189646	3.031632	3.89688	
chr3.S_13391287	3	13391287	3.509988	4.039614	
chr3.S_13541552	3	13541552	2.883618	2.777703	
chr3.S_14397283	3	14397283	2.774624	4.436373	
chr3.S_15439538	3	15439538	4.167819	3.504806	
chr3.S_15439549	3	15439549	3.318307	3.325268	
chr3.S_17258579	3	17258579	3.271327	2.85009	
chr3.S_17258605	3	17258605	2.906695	2.985057	
chr3.S_17925295	3	17925295	3.412051	4.739313	
chr3.S_17925296	3	17925296	3.187316	4.536584	

chr3.S_18026717	3	18026717	2.874669	3.503046	
chr3.S_18027702	3	18027702	3.36945	4.500393	
chr3.S_18222070	3	18222070	3.494283	4.159099	
chr3.S_18222097	3	18222097	3.227823	4.325911	
chr3.S_20409181	3	20409181	2.965112	3.465182	
chr3.S_20426001	3	20426001	2.917528	3.589036	
chr3.S_21455026	3	21455026	3.517446	4.274172	
chr3.S_21455860	3	21455860	3.169203	2.812069	
chr3.S_21858635	3	21858635	3.246239	3.786296	
chr3.S_28615787	3	28615787	2.913753	3.304425	
chr3.S_29613121	3	29613121	3.974182	2.793606	
chr3.S_29613122	3	29613122	3.76154	3.056327	
chr3.S_129162381	3	129162381	2.834754	2.776721	
chr3.S_129304528	3	129304528	3.318823	3.22387	
chr3.S_144098044	3	144098044	2.953743	3.008929	SSH
chr3.S_144098175	3	144098175	2.953743	3.008929	
chr3.S_144098485	3	144098485	3.024907	3.008755	
chr3.S_144100369	3	144100369	3.468861	2.976951	
chr3.S_144100371	3	144100371	3.459365	3.136859	
chr3.S_144100386	3	144100386	3.459365	3.136859	
chr3.S_144100515	3	144100515	3.459365	3.136859	
chr3.S_144100529	3	144100529	3.468861	2.976951	
chr3.S_158451113	3	158451113	3.915775	2.780895	
chr3.S_168837559	3	168837559	3.662742	3.245806	
chr3.S_168837573	3	168837573	3.139897	3.074455	
chr3.S_169874224	3	169874224	2.812282	2.837091	
chr3.S_177593027	3	177593027	2.948844	2.862357	
chr3.S_177792278	3	177792278	2.96774	2.89827	
chr3.S_177994753	3	177994753	2.879061	2.836495	
chr3.S_177994862	3	177994862	3.051252	2.847121	
chr3.S_186927465	3	186927465	5.765873	2.931525	
chr3.S_210507300	3	210507300	2.879455	2.929423	
chr3.S_214820577	3	214820577	3.363499	3.004008	SSH
chr3.S_214820593	3	214820593	3.401236	3.426636	
chr3.S_214820616	3	214820616	2.968041	3.101012	
chr3.S_216353568	3	216353568	3.413604	3.561116	
chr3.S_216421005	3	216421005	3.114302	3.093044	
chr3.S_230177590	3	230177590	3.268117	2.979554	
chr4.S_5090151	4	5090151	3.183633	3.879256	
chr4.S_5466292	4	5466292	3.963907	3.576304	
chr4.S_39973467	4	39973467	3.428783	2.746135	SSH
chr4.S_39976668	4	39976668	3.428783	2.746135	
chr4.S_39976694	4	39976694	3.428783	2.746135	

chr4.S_39976792	4	39976792	3.428783	2.746135	
chr4.S_39976957	4	39976957	3.428783	2.746135	
chr4.S_39977116	4	39977116	3.428783	2.746135	
chr4.S_39977118	4	39977118	3.428783	2.746135	
chr4.S_39977119	4	39977119	3.428783	2.746135	
chr4.S_39979546	4	39979546	3.428783	2.746135	
chr4.S_39979619	4	39979619	3.294402	2.96663	
PZE-104072121	4	143321574	3.344929	3.168041	
chr4.S_154046725	4	154046725	3.540058	2.871829	
chr4.S_155829644	4	155829644	3.105105	2.986201	
chr5.S_1678352	5	1678352	3.030865	3.531327	
chr5.S_1679175	5	1679175	3.524001	2.960506	
chr5.S_1682174	5	1682174	3.234162	3.803782	SSH
chr5.S_1727116	5	1727116	3.056415	3.882636	
chr5.S_1727118	5	1727118	3.246237	4.469236	
chr5.S_4611470	5	4611470	3.020167	3.325297	
chr5.S_7147808	5	7147808	2.773935	3.642918	
PZA02538.5	5	7855279	2.841485	3.23503	
chr5.S_8459601	5	8459601	2.998814	3.334552	
chr5.S_10588081	5	10588081	4.533004	3.362003	
chr5.S_11599311	5	11599311	3.017639	3.091473	
chr5.S_11599468	5	11599468	2.784809	3.569057	
chr5.S_14471481	5	14471481	3.523746	2.771325	
chr5.S_14471544	5	14471544	2.946315	2.843638	
chr5.S_32361659	5	32361659	3.666658	3.596416	
chr5.S_32362579	5	32362579	3.39846	3.053921	
chr5.S_32362581	5	32362581	3.586076	3.119555	
chr5.S_32362598	5	32362598	4.023628	3.767798	SSH
chr5.S_32362608	5	32362608	3.997957	3.755412	
chr5.S_32424953	5	32424953	3.610227	2.97396	
chr5.S_32430726	5	32430726	4.119147	3.874184	
PZE-105051594	5	45909320	3.195741	2.759921	
PZE-105058702	5	57210720	3.518756	2.864056	
chr5.S_57247559	5	57247559	3.328705	3.227426	
chr5.S_57247707	5	57247707	3.328705	3.227426	
PZE-105058722	5	57247774	3.334338	3.126653	
chr5.S_57248685	5	57248685	3.464028	2.936206	
chr5.S_57248733	5	57248733	3.508732	3.060367	SSH
chr5.S_57248739	5	57248739	3.464028	2.936206	
chr5.S_57248740	5	57248740	3.464028	2.936206	
chr5.S_57248783	5	57248783	3.464028	2.936206	
chr5.S_57248880	5	57248880	3.464028	2.936206	
chr5.S_57248912	5	57248912	3.464028	2.936206	

chr5.S_57248957	5	57248957	3.464028	2.936206	
chr5.S_57248983	5	57248983	3.464028	2.936206	
chr5.S_57249080	5	57249080	3.464028	2.936206	
chr5.S_57249131	5	57249131	3.464028	2.936206	
chr5.S_57249133	5	57249133	3.464028	2.936206	
chr5.S_60993936	5	60993936	2.860518	3.471771	
chr5.S_61532699	5	61532699	3.276532	2.936877	
chr5.S_73046127	5	73046127	3.157037	3.514937	
chr5.S_82954476	5	82954476	4.291956	3.618813	
chr5.S_155529088	5	155529088	2.826717	3.081993	
chr5.S_155531400	5	155531400	2.996597	2.883056	
chr5.S_193547866	5	193547866	2.936632	3.555758	
chr5.S_196412961	5	196412961	3.686415	3.574983	
chr5.S_196508144	5	196508144	3.311892	3.255166	
chr5.S_196508385	5	196508385	3.642639	3.227248	
chr5.S_196508387	5	196508387	4.018244	3.965282	SSH
chr5.S_196508562	5	196508562	3.333866	3.61378	
chr5.S_196508688	5	196508688	3.080201	3.198816	
chr5.S_196508694	5	196508694	3.160958	3.462166	
chr5.S_196798178	5	196798178	3.283057	4.810095	
chr5.S_196798283	5	196798283	2.813349	3.301986	
chr5.S_200778777	5	200778777	3.607959	3.543472	
chr5.S_207505598	5	207505598	3.103189	2.897901	
chr5.S_208994879	5	208994879	2.977917	2.833826	
chr5.S_212613695	5	212613695	4.500328	2.977041	
chr5.S_212819006	5	212819006	4.542537	2.813908	
chr5.S_212883003	5	212883003	3.480145	2.75473	
chr5.S_213004399	5	213004399	3.370099	3.179555	
chr5.S_213172363	5	213172363	3.361019	2.921343	
SYN2943	5	213293656	3.211315	3.441168	
PZE-106022855	6	55390064	3.777064	3.443524	
chr6.S_57398053	6	57398053	3.554615	2.972384	
chr6.S_57398118	6	57398118	3.330422	2.89519	
chr6.S_64935878	6	64935878	3.002848	2.830484	
chr6.S_64935888	6	64935888	3.002848	2.830484	
chr6.S_64935898	6	64935898	3.002848	2.830484	
chr6.S_64935934	6	64935934	3.002848	2.830484	SSH
chr6.S_64936000	6	64936000	3.002848	2.830484	
chr6.S_64936035	6	64936035	3.002848	2.830484	
chr6.S_64936054	6	64936054	3.002848	2.830484	
chr6.S_78615545	6	78615545	3.993332	3.883747	
chr6.S_151037449	6	151037449	3.464262	4.516737	
chr7.S_8066823	7	8066823	3.103674	2.919746	

chr7.S_19323223	7	19323223	4.015957	3.152265	
chr7.S_19323797	7	19323797	3.658178	3.166955	
chr7.S_28008093	7	28008093	3.360224	3.340298	SSH
chr7.S_28008162	7	28008162	3.360224	3.340298	
chr7.S_28008165	7	28008165	3.184861	2.82069	
chr7.S_28008241	7	28008241	3.26839	3.422771	
chr7.S_28009690	7	28009690	3.184861	2.82069	
chr7.S_28262436	7	28262436	2.977167	3.019904	
chr7.S_31770626	7	31770626	2.995073	3.011728	
chr7.S_31770683	7	31770683	2.995073	3.011728	
chr7.S_41423526	7	41423526	4.252429	2.865856	
chr7.S_130098335	7	130098335	3.697827	2.925036	
chr7.S_133370153	7	133370153	3.611024	3.441911	SSH
chr7.S_133370251	7	133370251	2.870727	2.872205	
chr7.S_133370257	7	133370257	2.870727	2.872205	
chr7.S_133370260	7	133370260	2.906154	2.943406	
chr7.S_141003026	7	141003026	3.222711	3.385805	
chr7.S_161813425	7	161813425	2.780631	3.727653	SSH
chr7.S_161813465	7	161813465	3.055716	3.956654	
chr7.S_161813496	7	161813496	2.910677	4.515448	
chr7.S_165302816	7	165302816	3.26561	6.193432	
chr7.S_165302933	7	165302933	3.162832	4.170169	
chr7.S_167938548	7	167938548	2.932389	2.978333	SSH
chr7.S_167989366	7	167989366	3.260614	3.990012	
chr7.S_167989492	7	167989492	2.861339	3.832777	
chr7.S_171036240	7	171036240	2.96689	3.401039	
chr7.S_175305534	7	175305534	2.9053	3.745296	
chr8.S_1918691	8	1918691	3.193976	2.971421	
chr8.S_4916745	8	4916745	3.151179	3.151333	
chr8.S_5894185	8	5894185	2.782769	2.776542	
chr8.S_6281840	8	6281840	4.015369	5.091751	
chr8.S_7675355	8	7675355	3.008425	4.020781	SSH
chr8.S_7675789	8	7675789	3.981012	3.024595	
chr8.S_7675825	8	7675825	2.880219	2.964873	
chr8.S_12283068	8	12283068	3.270432	2.824021	
chr8.S_147768475	8	147770142	2.822207	3.016704	
chr8.S_147772865	8	147773601	2.904759	3.325946	
chr8.S_169016456	8	169016631	3.679331	3.08293	
chr8.S_169016468	8	169016644	3.173462	2.74896	
PZE-108122960	8	169519465	3.788269	3.812974	
chr8.S_169521659	8	169521796	2.936945	2.768955	
chr8.S_169637593	8	169637784	3.768577	3.585053	
chr8.S_169660701	8	169664100	2.792746	3.082599	

chr9.S_13165717	9	13165893	3.331412	4.360864	
chr9.S_109316755	9	109317653	2.795525	3.497428	
PZE-109067146	9	110494844	2.888699	2.799332	
chr9.S_133900941	9	133918835	3.007794	2.854387	
chr9.S_148203197	9	148206318	2.942445	3.926443	
chr9.S_148206232	9	148211059	3.218106	4.210098	
chr9.S_151362289	9	151365147	2.974829	3.29245	
chr9.S_152043342	9	152043683	2.83462	2.923454	
chr9.S_153612337	9	153664309	4.132476	3.928454	
chr9.S_154367302	9	154377913	3.432094	4.250922	
chr10.S_1146010	10	1146246	2.834126	2.886906	
chr10.S_2651075	10	2652795	2.996843	3.334018	
chr10.S_4528695	10	4558489	3.316422	3.087618	SSH
chr10.S_4562413	10	4563202	4.05117	3.560214	
chr10.S_4562417	10	4563483	3.507007	3.078561	
chr10.S_60143338	10	60153273	3.203114	4.551415	
PZE-110034548	10	65746247	4.053095	3.145132	
chr10.S_69433454	10	69777908	2.852216	2.761799	
PZE-110036620	10	70267379	3.167497	3.711248	
chr10.S_142798774	10	142821341	3.469936	3.002071	
chr10.S_147190626	10	147192275	2.924076	3.033919	
chr10.S_147897092	10	147898056	3.510356	4.441152	