

Supplementary Table S1: Average, range values and BLUEs for saccharification efficiency in RILs of the MAGIC population

RILs	Saccharification (nmol/mg material.hour)
Means	138.4±1.8
Range	105.9-175.1
LSD (P < 0.05)	22.3
EPS21LR-241	141.9
EPS21LR-242	138.1
EPS21LR-243	154.6
EPS21LR-244	147.5
EPS21LR-245	136.1
EPS21LR-246	148.4
EPS21LR-247	128.6
EPS21LR-248	158.4
EPS21LR-249	138.0
EPS21LR-250	141.0
EPS21LR-251	134.8
EPS21LR-253	126.7
EPS21LR-254	137.8
EPS21LR-255	140.0
EPS21LR-256	136.6
EPS21LR-257	121.8
EPS21LR-258	136.7
EPS21LR-259	158.3
EPS21LR-260	105.9
EPS21LR-261	150.0
EPS21LR-262	132.1
EPS21LR-264	134.7
EPS21LR-265	130.8
EPS21LR-267	115.8
EPS21LR-268	131.5
EPS21LR-270	143.0
EPS21LR-271	137.3
EPS21LR-273	124.6
EPS21LR-275	141.2
EPS21LR-276	117.0
EPS21LR-277	123.3
EPS21LR-278	133.6
EPS21LR-279	121.8
EPS21LR-280	120.5
EPS21LR-281	138.5
EPS21LR-283	121.7
EPS21LR-284	116.5
EPS21LR-285	120.5
EPS21LR-286	124.5
EPS21LR-287	137.7
EPS21LR-288	144.7
EPS21LR-289	124.2
EPS21LR-290	144.5

EPS21LR-291	130.5
EPS21LR-294	136.0
EPS21LR-295	128.3
EPS21LR-296	147.6
EPS21LR-297	130.4
EPS21LR-299	143.0
EPS21LR-300	141.0
EPS21LR-301	130.1
EPS21LR-304	156.3
EPS21LR-305	140.3
EPS21LR-307	135.1
EPS21LR-308	134.8
EPS21LR-310	139.5
EPS21LR-311	144.5
EPS21LR-312	127.0
EPS21LR-313	145.5
EPS21LR-314	142.0
EPS21LR-316	133.1
EPS21LR-317	126.9
EPS21LR-318	137.4
EPS21LR-319	133.7
EPS21LR-321	147.6
EPS21LR-322	127.9
EPS21LR-323	142.0
EPS21LR-324	134.0
EPS21LR-325	156.3
EPS21LR-327	125.9
EPS21LR-328	140.1
EPS21LR-329	140.9
EPS21LR-331	129.7
EPS21LR-333	143.4
EPS21LR-334	143.5
EPS21LR-335	123.2
EPS21LR-336	118.1
EPS21LR-337	151.6
EPS21LR-338	131.0
EPS21LR-339	149.9
EPS21LR-340	152.0
EPS21LR-343	156.6
EPS21LR-345	138.5
EPS21LR-346	132.6
EPS21LR-347	129.8
EPS21LR-348	124.5
EPS21LR-349	135.5
EPS21LR-351	132.0
EPS21LR-352	149.0
EPS21LR-353	127.8
EPS21LR-354	126.7
EPS21LR-355	144.6
EPS21LR-356	130.7
EPS21LR-357	123.4
EPS21LR-358	127.4

EPS21LR-359	138.2
EPS21LR-360	138.7
EPS21LR-361	123.2
EPS21LR-362	133.2
EPS21LR-363	138.5
EPS21LR-364	153.7
EPS21LR-365	143.0
EPS21LR-366	133.7
EPS21LR-367	140.8
EPS21LR-370	136.6
EPS21LR-378	122.6
EPS21LR-379	147.5
EPS21LR-380	144.7
EPS21LR-381	152.6
EPS21LR-382	145.6
EPS21LR-384	139.9
EPS21LR-385	129.2
EPS21LR-386	143.0
EPS21LR-388	138.2
EPS21LR-389	157.1
EPS21LR-391	138.8
EPS21LR-393	137.6
EPS21LR-395	157.9
EPS21LR-396	153.9
EPS21LR-397	141.3
EPS21LR-398	123.8
EPS21LR-399	134.9
EPS21LR-400	142.6
EPS21LR-404	142.6
EPS21LR-405	152.1
EPS21LR-406	143.9
EPS21LR-407	148.5
EPS21LR-408	147.4
EPS21LR-409	129.1
EPS21LR-410	140.1
EPS21LR-411	124.4
EPS21LR-412	156.3
EPS21LR-413	131.4
EPS21LR-414	118.3
EPS21LR-415	110.6
EPS21LR-416	135.6
EPS21LR-419	143.7
EPS21LR-420	144.8
EPS21LR-421	143.2
EPS21LR-422	141.4
EPS21LR-424	141.2
EPS21LR-426	124.2
EPS21LR-427	127.3
EPS21LR-428	149.4
EPS21LR-430	136.8
EPS21LR-433	144.9
EPS21LR-436	151.4

EPS21LR-437	135.7
EPS21LR-438	147.6
EPS21LR-442	151.0
EPS21LR-443	127.7
EPS21LR-445	144.4
EPS21LR-446	146.9
EPS21LR-447	146.1
EPS21LR-448	140.9
EPS21LR-451	156.5
EPS21LR-452	141.1
EPS21LR-453	141.6
EPS21LR-454	142.7
EPS21LR-455	133.3
EPS21LR-456	143.0
EPS21LR-457	147.0
EPS21LR-458	146.3
EPS21LR-459	139.2
EPS21LR-460	139.1
EPS21LR-461	149.3
EPS21LR-462	128.4
EPS21LR-463	128.7
EPS21LR-467	140.0
EPS21LR-468	136.8
EPS21LR-470	133.1
EPS21LR-472	118.1
EPS21LR-473	153.1
EPS21LR-474	148.7
EPS21LR-475	134.6
EPS21LR-476	130.8
EPS21LR-477	134.5
EPS21LR-478	128.6
EPS21LR-479	140.4
EPS21LR-482	152.8
EPS21LR-483	141.0
EPS21LR-487	156.6
EPS21LR-488	142.6
EPS21LR-489	149.0
EPS21LR-491	152.2
EPS21LR-494	128.2
EPS21LR-496	135.9
EPS21LR-497	132.9
EPS21LR-500	135.3
EPS21LR-502	158.1
EPS21LR-503	149.0
EPS21LR-504	138.9
EPS21LR-508	163.1
EPS21LR-509	149.8
EPS21LR-511	142.9
EPS21LR-512	151.8
EPS21LR-513	129.3
EPS21LR-514	135.9
EPS21LR-515	164.5

EPS21LR-517	152.8
EPS21LR-520	137.3
EPS21LR-521	144.4
EPS21LR-522	115.3
EPS21LR-523	134.1
EPS21LR-524	119.5
EPS21LR-526	115.7
EPS21LR-529	130.3
EPS21LR-530	136.0
EPS21LR-531	130.3
EPS21LR-533	146.6
EPS21LR-534	136.4
EPS21LR-535	141.3
EPS21LR-537	139.3
EPS21LR-538	134.7
EPS21LR-539	146.1
EPS21LR-541	137.1
EPS21LR-542	131.0
EPS21LR-543	135.7
EPS21LR-544	134.3
EPS21LR-545	128.6
EPS21LR-546	138.8
EPS21LR-547	142.6
EPS21LR-548	132.3
EPS21LR-550	149.0
EPS21LR-552	128.9
EPS21LR-553	139.2
EPS21LR-555	135.1
EPS21LR-556	137.4
EPS21LR-558	130.1
EPS21LR-559	137.8
EPS21LR-560	130.3
EPS21LR-561	142.2
EPS21LR-563	122.6
EPS21LR-564	147.7
EPS21LR-567	136.9
EPS21LR-568	140.7
EPS21LR-569	142.3
EPS21LR-570	135.3
EPS21LR-571	133.4
EPS21LR-572	132.2
EPS21LR-573	140.9
EPS21LR-574	138.3
EPS21LR-576	124.6
EPS21LR-577	137.4
EPS21LR-578	123.8
EPS21LR-579	140.7
EPS21LR-580	147.0
EPS21LR-581	130.1
EPS21LR-582	146.6
EPS21LR-583	156.7
EPS21LR-584	160.1

EPS21LR-585	145.7
EPS21LR-586	151.5
EPS21LR-589	128.9
EPS21LR-590	146.9
EPS21LR-591	140.3
EPS21LR-593	148.1
EPS21LR-594	159.1
EPS21LR-595	136.3
EPS21LR-596	146.3
EPS21LR-597	127.8
EPS21LR-598	156.8
EPS21LR-600	138.1
EPS21LR-602	132.1
EPS21LR-603	133.2
EPS21LR-604	152.1
EPS21LR-605	130.8
EPS21LR-606	145.0
EPS21LR-607	155.9
EPS21LR-608	135.2
EPS21LR-609	142.8
EPS21LR-614	133.9
EPS21LR-615	133.1
EPS21LR-616	139.6
EPS21LR-617	130.8
EPS21LR-618	131.6
EPS21LR-619	128.1
EPS21LR-620	140.9
EPS21LR-621	129.4
EPS21LR-623	153.4
EPS21LR-624	125.8
EPS21LR-625	144.7
EPS21LR-626	141.9
EPS21LR-627	131.0
EPS21LR-628	132.6
EPS21LR-629	113.3
EPS21LR-630	125.5
EPS21LR-631	129.1
EPS21LR-633	130.6
EPS21LR-634	136.6
EPS21LR-635	126.6
EPS21LR-637	138.2
EPS21LR-640	148.6
EPS21LR-641	138.6
EPS21LR-642	135.6
EPS21LR-643	115.0
EPS21LR-644	131.9
EPS21LR-645	129.2
EPS21LR-646	146.5
EPS21LR-647	139.3
EPS21LR-648	136.4
EPS21LR-653	145.4
EPS21LR-655	152.1

EPS21LR-657	140.2
EPS21LR-658	145.7
EPS21LR-660	137.6
EPS21LR-661	122.7
EPS21LR-662	146.8
EPS21LR-663	150.7
EPS21LR-664	131.1
EPS21LR-665	138.5
EPS21LR-666	135.0
EPS21LR-667	138.3
EPS21LR-668	152.0
EPS21LR-669	130.0
EPS21LR-670	126.6
EPS21LR-671	137.1
EPS21LR-672	160.6
EPS21LR-674	146.6
EPS21LR-675	123.4
EPS21LR-676	138.2
EPS21LR-677	132.7
EPS21LR-678	130.7
EPS21LR-679	159.9
EPS21LR-682	133.7
EPS21LR-684	144.7
EPS21LR-686	142.1
EPS21LR-688	143.4
EPS21LR-691	130.3
EPS21LR-693	130.3
EPS21LR-694	162.8
EPS21LR-695	158.5
EPS21LR-698	115.9
EPS21LR-701	143.0
EPS21LR-703	123.3
EPS21LR-704	135.4
EPS21LR-705	136.2
EPS21LR-706	135.0
EPS21LR-707	135.7
EPS21LR-708	153.0
EPS21LR-709	141.2
EPS21LR-710	125.0
EPS21LR-711	133.0
EPS21LR-714	130.7
EPS21LR-715	136.7
EPS21LR-716	153.4
EPS21LR-717	137.5
EPS21LR-718	144.9
EPS21LR-719	151.2
EPS21LR-720	154.4
EPS21LR-721	137.0
EPS21LR-722	136.4
EPS21LR-723	175.1
EPS21LR-724	142.4
EPS21LR-725	135.6

EPS21LR-726	154.2
EPS21LR-727	133.7
EPS21LR-732	142.1
EPS21LR-733	157.6
EPS21LR-734	139.0
EPS21LR-736	141.0
EPS21LR-738	135.8
EPS21LR-740	126.5
EPS21LR-741	160.5
EPS21LR-742	126.4
EPS21LR-743	145.3
EPS21LR-744	145.5
EPS21LR-745	135.8
EPS21LR-746	140.1
EPS21LR-748	115.0
EPS21LR-749	146.9
EPS21LR-750	133.7
EPS21LR-751	145.1
EPS21LR-752	140.9
EPS21LR-753	137.2
EPS21LR-754	135.6
EPS21LR-759	134.9
EPS21LR-760	145.4
EPS21LR-764	132.4
EPS21LR-765	132.5
EPS21LR-767	141.7
EPS21LR-768	144.4