

Table S2 Two-way ANOVA test for activities of enzymes involved in starch biosynthesis

Difference	SS	df	MS	F	P-value	F crit
Sucrose synthase (SS)						
Genotype	1084.824	1	1084.824	2760.171	4.31E-31	4.170877
Growth condition	1193.247	2	596.6233	1518.018	7.21E-31	3.31583
Interaction	1153.4	2	576.7	1467.326	1.19E-30	3.31583
Interior	11.79083	30	0.393028			
Total	3443.261589	35				
Sucrose phosphate synthase (SPS)						
Genotype	119.0645	1	119.0645	3886.127	2.66E-33	4.170877
Growth condition	199.5529	2	99.77644	3256.588	8.32E-36	3.31583
Interaction	201.5387	2	100.7693	3288.995	7.17E-36	3.31583
Interior	0.91915	30	0.030638			
Total	521.0752	35				
ADP-Glc pyrophosphorylase (AGPase)						
Genotype	102.7858	1	102.7858	3106.823	7.43E-32	4.170877
Growth condition	30.91002	2	15.45501	467.1461	2.48E-23	3.31583
Interaction	35.35529	2	17.67764	534.3279	3.5E-24	3.31583
Interior	0.992517	30	0.033084			
Total	170.0436	35				
Granule-bound starch synthase (GBSS)						
Genotype	19.1698	1	19.1698	226.9436	1.56E-15	4.170877
Growth condition	788.2894	2	394.1447	4666.122	3.86E-38	3.31583
Interaction	808.3021	2	404.151	4784.583	2.65E-38	3.31583
Interior	2.534083	30	0.084469			
Total	1618.295	35				
Soluble starch synthase (SSS)						
Genotype	8088.604	1	8088.604	49549.71	7.71E-50	4.170877
Growth condition	7246.68	2	3623.34	22196.1	2.77E-48	3.31583
Interaction	7180.613	2	3590.307	21993.74	3.18E-48	3.31583
Interior	4.897267	30	0.163242			
Total	22520.79	35				
Starch branching enzyme (SBE)						
Genotype	52.34523	1	52.34523	1036.642	7.98E-25	4.170877
Growth condition	31.95209	2	15.97604	316.3886	6.86E-21	3.31583
Interaction	33.0398	2	16.5199	327.1591	4.25E-21	3.31583
Interior	1.51485	30	0.050495			
Total	118.852	35				