

**Table S1.** The diverse collection of 90 rice accession.

Code	Name	Population structure	<i>Wx</i> allele
SL01	Menjiading3	XI	<i>wx</i>
SL02	Baikezhan4	XI	<i>Wx<sup>a</sup></i>
SL03	Shenshuiyan	XI	<i>Wx<sup>b</sup></i>
SL04	menjiading2	XI	<i>Wx<sup>a</sup></i>
SL05	hualinuo2	GJ2	<i>Wx<sup>in</sup></i>
SL06	menjiaqin	GJ2	<i>wx</i>
SL07	menjianing	GJ2	<i>wx</i>
SL08	miaomumai2	XI	<i>Wx<sup>a</sup></i>
SL09	zhishouwan1	GJ2	<i>Wx<sup>in</sup></i>
SL10	zhishouwan2	GJ2	<i>Wx<sup>b</sup></i>
SL11	menmiaonong1	GJ2	<i>Wx<sup>la/mw</sup></i>
SL12	menmiaonong2	GJ2	<i>Wx<sup>la/mw</sup></i>
SL13	mennuo1	GJ2	<i>wx</i>
SL14	huanggu1	GJ2	<i>wx</i>
SL15	huanggu2	GJ2	<i>Wx<sup>la/mw</sup></i>
SL16	zhuangannuo	GJ2	<i>wx</i>
SL17	shanlannuo1	GJ2	<i>wx</i>
SL18	shanlannuo2	GJ2	<i>Wx<sup>in</sup></i>
SL19	shanlannuo3	GJ2	<i>wx</i>
SL20	hongkezidaoyan	XI	<i>Wx<sup>b</sup></i>
SL21	guangtounuo	GJ2	<i>wx</i>
SL22	shanlan2	XI	<i>Wx<sup>la/mw</sup></i>
SL23	pole2	XI	<i>Wx<sup>b</sup></i>
SL24	menjiaoyan	GJ2	<i>Wx<sup>in</sup></i>
SL25	menjiade2	XI	<i>Wx<sup>b</sup></i>
SL26	baisiliangan	GJ2	<i>Wx<sup>la/mw</sup></i>
SL27	menjiaoyan1	GJ2	<i>Wx<sup>la/mw</sup></i>
SL28	shanlannuo3	GJ1	<i>Wx<sup>in</sup></i>
SL29	moyiqu	GJ2	<i>wx</i>
SL30	heisidi1	GJ2	<i>Wx<sup>b</sup></i>
SL31	pozhan1	XI	<i>Wx<sup>b</sup></i>
SL32	pozhan3	XI	<i>Wx<sup>b</sup></i>
SL33	daohuangnuo	XI	<i>Wx<sup>la/mw</sup></i>
SL34	heimaonuo	GJ2	<i>wx</i>
SL35	zhongping1	GJ2	<i>wx</i>
SL36	zhongping2	GJ2	<i>wx</i>
SL37	zhongping3	GJ2	<i>Wx<sup>in</sup></i>
SL38	zhongping4	GJ2	<i>Wx<sup>in</sup></i>
SL39	zhongpingnian1	XI	<i>Wx<sup>a</sup></i>
SL40	zhongpingnian2	GJ2	<i>wx</i>

SL41	menkao2	XI	$Wx^{in}$
SL42	wuke3	XI	$Wx^{lv}$
SL43	wuke4	XI	$Wx^{lv}$
SL44	menjiafei1	XI	$Wx^a$
SL45	shanlan3	XI	$Wx^{lv}$
SL46	huangweishan2	XI	$Wx^{lv}$
SL47	menjamei1	XI	$Wx^a$
SL48	menjamei2	XI	$Wx^{lv}$
SL49	jialai1	GJ2	$wx$
SL50	kajialai2	GJ2	$wx$
SL51	gugu1	XI	$Wx^{lv}$
SL52	gugu3	GJ2	$Wx^b$
SL53	huangnuo3	XI	$Wx^a$
SL54	heidao1	XI	$Wx^a$
SL55	wanningnuo1	XI	$Wx^b$
SL56	shengsuanshanlan	GJ2	$Wx^{la/mw}$
SL57	menli	XI	$Wx^{lv}$
SL58	shanlannuo3	GJ2	$Wx^{la/mw}$
SL59	lvdao	GJ1	$wx$
SL60	shanlannuo3(hongmang)	XI	$Wx^{in}$
SL61	menjiati1	GJ2	$Wx^{la/mw}$
SL62	menjiati4	GJ1	$Wx^{in}$
SL63	pohe	XI	$Wx^{lv}$
SL64	shanlanzhumudao	GJ2	$wx$
SL65	lizhishanlan1	XI	$Wx^{lv}$
SL66	wuyuehong	XI	$Wx^{lv}$
SL67	fanjia	GJ2	$wx$
SL68	heimaozhan	GJ2	$Wx^{la/mw}$
SL69	shanlan1	GJ2	$wx$
SL70	shanlanuo2	GJ2	$wx$
SL71	heinuo	XI	$wx$
SL72	jinsi	XI	$Wx^a$
SL73	zhaonong	XI	$Wx^a$
SL74	shanlannuo2	XI	$Wx^{lv}$
SL75	shanlannuo3	XI	$Wx^{lv}$
SL76	shanlannuo4	GJ2	$Wx^b$
SL77	guangtounuo	XI	$Wx^a$
SL78	baishanlan	XI	$wx$
SL79	shanlanbainuo	XI	$Wx^{lv}$
SL80	shuangkehongmi	GJ2	$Wx^{la/mw}$
SL81	shanlanhongmi	XI	$Wx^{lv}$
SL82	shanlanheimi	XI	$Wx^a$
SL83	shanlandao1	XI	$wx$

SL84	shanlandao2	GJ1	$Wx^{la/mw}$
Nip	Nipponbare	GJ1	$Wx^b$
ZH11	Zhonghua11	GJ1	$Wx^b$
GLA4	Guangluai4	XI	$Wx^a$
IR36	IR36	XI	$Wx^a$
9311	9311	XI	$Wx^b$
TN67	Tainung67	GJ1	$Wx^b$

**Table S2.** Phenotypic variation in different among *Wx* alleles.

	<i>wx</i>		<i>Wx<sup>a</sup></i>		<i>Wx<sup>b</sup></i>		<i>Wx<sup>ab</sup></i>		<i>Wx<sup>law</sup></i>		<i>Wx<sup>b</sup></i>	
	Means ± SD	Range	Means ± SD	Range	Means ± SD	Range	Means ± SD	Range	Means ± SD	Range	Means ± SD	Range
AAC (%)	2.31±0.6	1.6-3.2	26.6±2	23.6-28.7	16.1±2	14.8-17.8	19.9±4	17.6-24.6	15.4±5	11.0-26.4	26.7±6	20.9-31.7
PV (RVU)	182.5±52.3	76.2-250.3	290.8±26.1	229.3-344.7	294.7±18.5	274.4-321.1	223.5±25.7	171.0-266.5	295.0±30.2	239.7-329.2	203.7±29.4	174.8-234.5
HPV (RVU)	104.9±30.4	38.4-140.8	209.4±23.7	165.5-265.4	163.8±13.9	170.6-178.0	161.1±16.0	124.4-186.6	166.2±22.3	108.9-197.0	136.5±17.9	105.7-173.0
BD (RVU)	77.6±27.4	35.7-117.7	81.4±17.6	48.1-105.9	130.8±13.5	110.9-150.5	62.4±22.5	31.3-108.8	128.8±28.9	103.1-173.8	67.2±20.2	20.3-106.7
CPV (RVU)	135.7±40.2	52.3-206.3	373.6±35.5	323.3-474.2	269.4±18.8	236.9-291.5	282.6±29.1	269.8-293.8	268.5±50.4	232.0-300.4	270.8±35.6	265.3-333.8
SB (RVU)	-46.8±24.7	-83.3- -6.8	82.8±16.1	66.3-129.5	-25.2±11.1	-37.5- -21.7	59.1±18.6	37.8-89.1	-26.5±48.3	-85.1- -23.5	70.0±25.4	34.6-103.5
PT (°C)	67.2±1.8	63.9-71.2	77.2±2.8	70.0-79.9	72.3±3.0	68.1-77.2	73.8±3.8	67.7-78.3	71.9±3.8	67.2-79.9	76.8±2.1	70.4-79.1
HD (gf)	2.7±1.3	1.3-5.6	18.4±6.4	4.4-31.4	4.5±0.8	3.3-5.5	6.1±2.1	2.5-10.4	4.6±2.4	2.1-10.8	19.9±2.8	14.0-24.0
ADH (gf's)	-2.2±2.2	-9.5- -0.1	-4.6±3.2	-11.9-1.4	-11.1±10.8	-30- -0.5	-4.5±7.0	-22-7.4	-5.3±6.8	-25-2.0	-17.2±23.1	-15.3- -4.1
GUM (gf)	2.2±2	0.4-8.1	11.1±5.1	2.0-17.7	2.5±0.7	1.6-3.8	3.3±1.5	1.3-7.2	2.6±1.3	1.4-6.2	11.3±2.7	6.7-17.8
COH (gf)	0.8±0.4	0.2-1.5	0.6±0.1	0.4-0.8	0.6±0.1	0.5-0.8	1.0±1.3	0.5-5.0	0.6±0.1	0.5-0.7	0.6±0.1	0.4-0.9
To (°C)	61.2±1.7	58.2-65.7	72.3±0.8	70.8-73.3	64.1±4.0	60.4-71.4	65.7±5.2	57.0-71.3	64.7±5.7	59.2-76.4	70.6±2.6	68.5-73.6
Tp (°C)	69.2±1.6	66.7-74.2	75.1±3.2	67.2-78.4	71.7±4.0	68.5-79.4	73.0±4.0	66.0-76.6	71.4±4.4	67.7-80.7	75.4±2.3	73.5-77.8
Tc (°C)	78.8±2.5	76.0-85.0	81.3±1.1	79.9-84.1	81.6±4.0	76.2-86.1	80.9±2.1	79.1-82.6	80.1±2.3	77.8-83.2	80.7±1.8	77.9-82.9
ΔHg (J/g)	10.1±0.6	8.8-11.0	8.7±0.7	7.8-10.1	8.5±0.3	7.8-8.7	8.4±1.1	6.5-9.9	8.9±0.8	7.8-9.6	8.1±0.9	5.9-9.8
RTo (°C)	48±2.2	43.7-51.8	47.6±0.4	47.0-48.4	48.2±2.0	46.2-47.7	47.8±1.0	46.3-49.2	48.1±1.3	46.6-48.9	47.8±1.4	45.4-51.4
RTp (°C)	58±1.4	55.3-60.9	58.2±0.4	57.2-59.0	57.1±1.6	57.1-58.8	58.1±0.7	56.9-59.0	57.8±0.5	56.8-58.9	58.3±1.1	56.1-59.5
RTc (°C)	65.4±2	62.2-69.6	66.9±0.8	66.2-68.3	65.5±0.7	64.6-66.5	65.8±1.9	64.5-66.7	65.2±2.0	64.6-67.8	67.0±1.5	63.5-72.2
ΔHr (J/g)	1.1±0.8	0.3-3.0	5.7±0.6	5.0-6.3	2.6±1.0	1.4-4.1	4.2±1.5	1.7-6.1	3.2±2.2	0.6-7.3	5.3±0.9	4.0-6.8
R (%)	11.5±8.5	3.5-36	59.2±14	33.4-79.3	37.5±13.7	19.3-53.8	46.3±15.5	18.1-71.0	35.6±22.9	6.7-76.8	66.8±9.5	45.9-81.9

**Table S3.** The SNP information in the 19.71–19.81 Mb candidate region for GUM.

MSU ID	Chromosome	SNP location	Reference	Alternative	Variation type	Associated signal in GWAS ( <i>p</i> value)*
LOC_Os02g33250, LOC_Os02g33260(dist=501)	Chr2	19767079	A	G	upstream	7.44E-06
LOC_Os02g33250, LOC_Os02g33260(dist=499)	Chr2	19767081	T	G	upstream	6.69E-04

\*The *p*-value was calculated by Tassel5 with MLM. SNPs with *p*-value less than 0.001 were listed.

**Table S4.** The SNP information in the 17.68–17.78 Mb candidate region for GUM.

MSU ID	Chromosome	SNP location	Reference	Alternative	Variation type	Associated signal in GWAS ( <i>p</i> value)*
LOC_Os05g30620(dist=1108)	Chr5	17739626	A	G	downstream	3.54E-05
LOC_Os05g30560(dist=950)	Chr5	17708858	T	C	upstream	5.01E-04

\*The *p*-value was calculated by Tassel5 with MLM. SNPs with *p*-value less than 0.001 were listed.

**Table S5.** The SNP information in the 16.55–16.65 Mb candidate region for To.

MSU ID	Chromosome	SNP location	Reference	Alternative	Variation type	Associated signal in GWAS ( <i>p</i> value)*
LOC_Os12g28110(dist=3051), LOC_Os12g28137(dist=14770)	Chr12	16601969	G	T	intergenic	2.46E-04
LOC_Os12g28110(dist=3063), LOC_Os12g28137(dist=14758)	Chr12	16601981	G	A	intergenic	2.46E-04

\*The *p*-value was calculated by Tassel5 with MLM. SNPs with *p*-value less than 0.001 were listed.

**Table S6.** The SNP information in the 20.94–21.04 Mb candidate region for Tp.

MSU ID	Chromosome	SNP location	Reference	Alternative	Variation type	Associated signal in GWAS <i>p</i> value)*
LOC_Os08g33610(dist=7172),LOC_Os08g33620(dist=4474)	Chr8	20992803	T	C	intergenic	2.28E-06
LOC_Os08g33620(dist=1733)	Chr8	20995544	G	A	upstream	2.28E-06
LOC_Os08g33610(dist=9491),LOC_Os08g33620(dist=2155)	Chr8	20995122	A	G	intergenic	5.60E-06
LOC_Os08g33610(dist=9507),LOC_Os08g33620(dist=2139)	Chr8	20995138	T	C	intergenic	5.60E-06
LOC_Os08g33620(dist=1288)	Chr8	20995989	A	C	upstream	2.80E-05
LOC_Os08g33620(dist=1278)	Chr8	20995999	T	C	upstream	2.80E-05
LOC_Os08g33590(dist=1692)	Chr8	20972567	A	G	downstream	3.07E-05
					exonic,	
LOC_Os08g33690	Chr8	21037004	A	G	synonymous	3.13E-05
					SNV	
LOC_Os08g33590(LOC_Os08g33590.1:c.-188G>C)	Chr8	20977227	C	G	UTR5	3.34E-05
					exonic,	
LOC_Os08g33700	Chr8	21043296	T	C	synonymous	3.34E-05
					SNV	
LOC_Os08g33660(dist=525)	Chr8	21021988	A	G	upstream	4.78E-05
LOC_Os08g33620(dist=1811)	Chr8	20995466	A	G	upstream	5.18E-05
LOC_Os08g33620,LOC_Os08g33630(dist=1662)	Chr8	20998398	A	G	downstream	5.29E-05
LOC_Os08g33590(dist=246)	Chr8	20977500	C	G	upstream	5.35E-05
LOC_Os08g33610(dist=886)	Chr8	20986517	A	T	upstream	5.35E-05
LOC_Os08g33610(dist=898)	Chr8	20986529	C	T	upstream	5.35E-05
LOC_Os08g33610(dist=4207),LOC_Os08g33620(dist=7439)	Chr8	20989838	T	C	intergenic	5.37E-05
LOC_Os08g33630(dist=662)	Chr8	21004608	A	G	upstream	5.37E-05
LOC_Os08g33630(dist=667)	Chr8	21004613	C	A	upstream	5.37E-05
LOC_Os08g33640(dist=952)	Chr8	21009762	A	C	upstream	5.37E-05
LOC_Os08g33640(dist=743)	Chr8	21009971	G	A	upstream	5.37E-05
LOC_Os08g33680(LOC_Os08g33680.1:c.-13C>G)	Chr8	21036007	G	C	UTR5	5.37E-05
LOC_Os08g33610	Chr8	20985222	T	A	intronic	5.41E-05
LOC_Os08g33610	Chr8	20985159	T	C	intronic	5.43E-05
LOC_Os08g33610	Chr8	20985191	C	T	intronic	5.43E-05
LOC_Os08g33670(dist=476)	Chr8	21029435	A	G	upstream	5.69E-05
LOC_Os08g33670(dist=477)	Chr8	21029436	G	A	upstream	5.69E-05
LOC_Os08g33670(dist=543)	Chr8	21029502	T	C	upstream	5.69E-05
LOC_Os08g33650	Chr8	21017560	T	G	intronic	5.70E-05
LOC_Os08g33690(dist=2167),LOC_Os08g33700(dist=3559)	Chr8	21039444	A	C	intergenic	5.74E-05
LOC_Os08g33690(dist=2480),LOC_Os08g33700(dist=3246)	Chr8	21039757	T	C	intergenic	5.74E-05
LOC_Os08g33690(dist=2519),LOC_Os08g33700(dist=3207)	Chr8	21039796	C	T	intergenic	5.74E-05
LOC_Os08g33590(dist=1511)	Chr8	20978765	A	C	upstream	5.77E-05

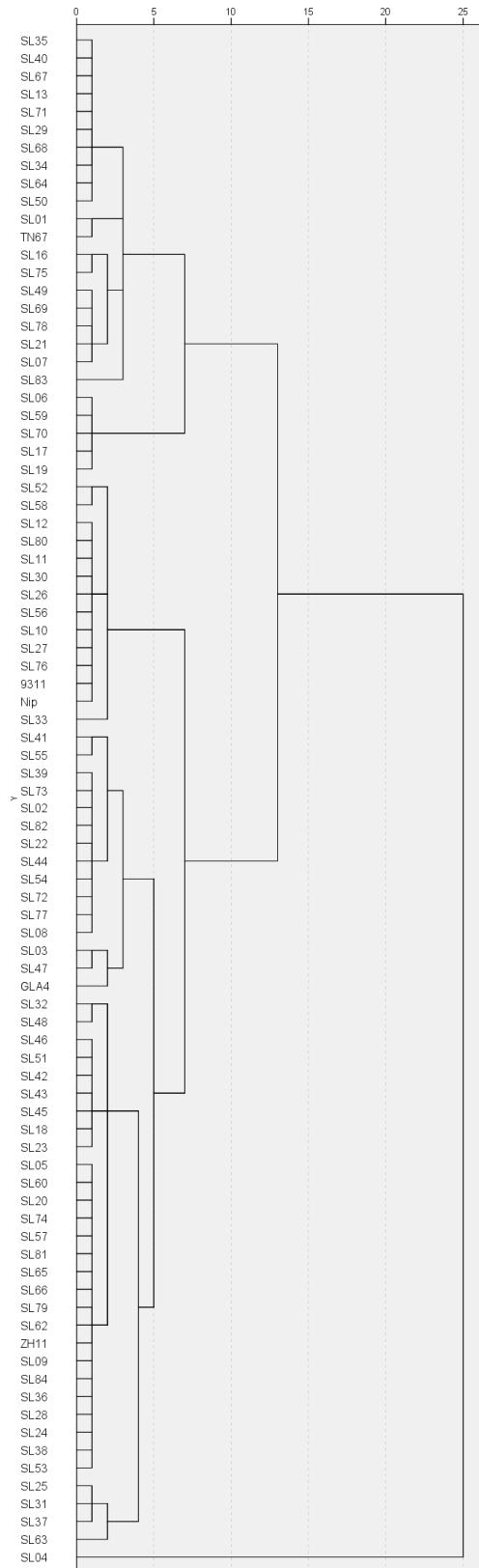
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LOC_Os08g33690	Chr8	21036767	A	G	synonymous	5.77E-05
					SNV	
LOC_Os08g33670(dist=2240),LOC_Os08g33680(dist=2979)	Chr8	21031199	A	G	intergenic	5.79E-05
LOC_Os08g33610(dist=5933),LOC_Os08g33620(dist=5713)	Chr8	20991564	T	C	intergenic	5.81E-05
LOC_Os08g33610(dist=6070),LOC_Os08g33620(dist=5576)	Chr8	20991701	G	T	intergenic	5.81E-05
LOC_Os08g33650(LOC_Os08g33650.1:c.*117A>G)	Chr8	21015720	A	G	UTR3	5.81E-05
LOC_Os08g33630(dist=449)	Chr8	21004395	T	C	upstream	5.84E-05
LOC_Os08g33630(dist=458)	Chr8	21004404	G	A	upstream	5.84E-05
LOC_Os08g33700(dist=1499)	Chr8	21041504	G	A	upstream	5.90E-05
					exonic,	
LOC_Os08g33600	Chr8	20983484	A	G	synonymous	5.93E-05
					SNV	
LOC_Os08g33690(dist=1001)	Chr8	21038278	T	G	downstream	5.93E-05
					exonic,	
LOC_Os08g33600 (retrotransposon protein)	Chr8	20983863	A	G	nonsynonymous	5.95E-05
					SNV	
					exonic,	
LOC_Os08g33600 (retrotransposon protein)	Chr8	20984209	G	A	nonsynonymous	5.95E-05
					SNV	
LOC_Os08g33630(dist=316)	Chr8	21004262	T	C	upstream	5.95E-05
LOC_Os08g33630(dist=332)	Chr8	21004278	C	T	upstream	5.95E-05
LOC_Os08g33630(dist=335)	Chr8	21004281	G	T	upstream	5.95E-05
LOC_Os08g33630(dist=351)	Chr8	21004297	T	G	upstream	5.95E-05
LOC_Os08g33630(dist=388)	Chr8	21004334	G	A	upstream	5.95E-05
LOC_Os08g33670(dist=1797)	Chr8	21023747	T	A	downstream	5.95E-05
LOC_Os08g33670	Chr8	21028183	A	C	intronic	5.95E-05
LOC_Os08g33670(dist=801)	Chr8	21029760	T	C	upstream	5.95E-05
LOC_Os08g33590(dist=1601)	Chr8	20978855	A	G	upstream	5.98E-05
LOC_Os08g33680(dist=688)	Chr8	21033490	A	C	downstream	5.98E-05
LOC_Os08g33630(dist=3999),LOC_Os08g33640(dist=2769)	Chr8	21007945	G	A	intergenic	5.98E-05
LOC_Os08g33630(dist=4010),LOC_Os08g33640(dist=2758)	Chr8	21007956	A	G	intergenic	5.98E-05
LOC_Os08g33680(dist=1370)	Chr8	21032808	G	A	downstream	5.98E-05
LOC_Os08g33680(dist=1366)	Chr8	21032812	C	G	downstream	5.98E-05
LOC_Os08g33680(dist=1350)	Chr8	21032828	A	G	downstream	5.98E-05
					exonic,	
LOC_Os08g33680	Chr8	21034712	T	C	synonymous	5.98E-05
					SNV	
LOC_Os08g33700(dist=1312)	Chr8	21041691	G	C	upstream	5.98E-05
LOC_Os08g33620,LOC_Os08g33630(dist=1648)	Chr8	20998412	T	C	downstream	5.98E-05
LOC_Os08g33620,LOC_Os08g33630(dist=1631)	Chr8	20998429	A	G	downstream	5.98E-05
LOC_Os08g33680(dist=1944)	Chr8	21032234	A	G	downstream	5.98E-05

LOC_Os08g33680	Chr8	21035183	G	A	intronic exonic,	5.98E-05
LOC_Os08g33670	Chr8	21027338	C	G	synonymous SNV	5.98E-05
LOC_Os08g33540	Chr8	20945875	T	A	intronic	5.98E-05
LOC_Os08g33540	Chr8	20945910	C	A	intronic	5.98E-05
LOC_Os08g33540	Chr8	20946268	C	T	intronic	5.98E-05
LOC_Os08g33540	Chr8	20946353	T	G	intronic	5.98E-05
LOC_Os08g33540,LOC_Os08g33550(dist=889)	Chr8	20948070	A	G	upstream	5.98E-05
LOC_Os08g33580(dist=3739),LOC_Os08g33590(dist=3158)	Chr8	20971101	T	C	intergenic	5.98E-05
LOC_Os08g33590(dist=1616)	Chr8	20972643	A	G	downstream	5.98E-05
LOC_Os08g33590	Chr8	20976317	G	A	intronic	5.98E-05
LOC_Os08g33590(dist=361)	Chr8	20977615	T	C	upstream	5.98E-05
LOC_Os08g33590(dist=539)	Chr8	20977793	A	T	upstream	5.98E-05
LOC_Os08g33590(dist=581)	Chr8	20977835	G	A	upstream	5.98E-05
LOC_Os08g33590(dist=1127)	Chr8	20978381	T	A	upstream	5.98E-05
LOC_Os08g33590(dist=1310)	Chr8	20978564	A	G	upstream	5.98E-05
LOC_Os08g33590(dist=1366)	Chr8	20978620	C	T	upstream	5.98E-05
LOC_Os08g33590(dist=1989)	Chr8	20979243	T	A	upstream	5.98E-05
LOC_Os08g33590(dist=2215),LOC_Os08g33600(dist=3227)	Chr8	20979469	G	A	intergenic	5.98E-05
LOC_Os08g33590(dist=2261),LOC_Os08g33600(dist=3181)	Chr8	20979515	C	A	intergenic	5.98E-05
LOC_Os08g33590(dist=2265),LOC_Os08g33600(dist=3177)	Chr8	20979519	A	T	intergenic	5.98E-05
LOC_Os08g33590(dist=2418),LOC_Os08g33600(dist=3024)	Chr8	20979672	G	A	intergenic	5.98E-05
LOC_Os08g33590(dist=2422),LOC_Os08g33600(dist=3020)	Chr8	20979676	G	A	intergenic	5.98E-05
LOC_Os08g33590(dist=2433),LOC_Os08g33600(dist=3009)	Chr8	20979687	G	A	intergenic	5.98E-05
LOC_Os08g33590(dist=2754),LOC_Os08g33600(dist=2688)	Chr8	20980008	C	T	intergenic	5.98E-05
LOC_Os08g33590(dist=2770),LOC_Os08g33600(dist=2672)	Chr8	20980024	T	A	intergenic	5.98E-05
LOC_Os08g33590(dist=3326),LOC_Os08g33600(dist=2116)	Chr8	20980580	T	G	intergenic	5.98E-05
LOC_Os08g33600(dist=1937)	Chr8	20980759	A	T	upstream	5.98E-05
LOC_Os08g33600(dist=1604)	Chr8	20981092	A	T	upstream	5.98E-05
LOC_Os08g33600(dist=1525)	Chr8	20981171	T	C	upstream	5.98E-05
LOC_Os08g33600(dist=1022)	Chr8	20981674	G	A	upstream	5.98E-05
LOC_Os08g33600(dist=328)	Chr8	20982368	T	G	upstream	5.98E-05
LOC_Os08g33600(dist=125)	Chr8	20982571	T	C	upstream exonic,	5.98E-05
LOC_Os08g33600	Chr8	20982782	A	G	synonymous SNV	5.98E-05
LOC_Os08g33600 (retrotransposon protein)	Chr8	20982813	A	G	exonic, nonsynonymous SNV	5.98E-05

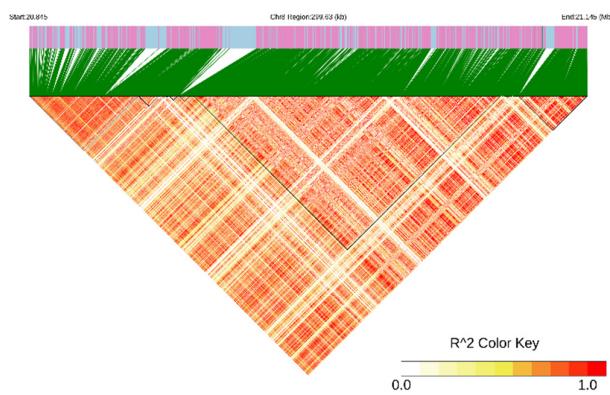
LOC_Os08g33600 (retrotransposon protein)	Chr8	20982841	G	A	nonsynonymous	5.98E-05
					SNV	
					exonic,	
LOC_Os08g33600	Chr8	20982944	G	A	synonymous	5.98E-05
					SNV	
					exonic,	
LOC_Os08g33600 (retrotransposon protein)	Chr8	20983039	T	C	nonsynonymous	5.98E-05
					SNV	
					exonic,	
LOC_Os08g33600	Chr8	20983069	C	T	intronic	5.98E-05
LOC_Os08g33600	Chr8	20983080	C	T	intronic	5.98E-05
					exonic,	
LOC_Os08g33600	Chr8	20983694	T	G	synonymous	5.98E-05
					SNV	
LOC_Os08g33600,LOC_Os08g33610(dist=219)	Chr8	20984356	A	G	downstream	5.98E-05
LOC_Os08g33600,LOC_Os08g33610(dist=208)	Chr8	20984367	C	A	downstream	5.98E-05
LOC_Os08g33600,LOC_Os08g33610(dist=51)	Chr8	20984524	G	A	downstream	5.98E-05
					exonic,	
LOC_Os08g33610 (retrotransposon protein)	Chr8	20984627	C	T	nonsynonymous	5.98E-05
					SNV	
					exonic,	
LOC_Os08g33610	Chr8	20984686	A	G	synonymous	5.98E-05
					SNV	
					exonic,	
LOC_Os08g33610	Chr8	20984938	G	A	synonymous	5.98E-05
					SNV	
					exonic,	
LOC_Os08g33610	Chr8	20984989	G	A	synonymous	5.98E-05
					SNV	
					exonic,	
LOC_Os08g33610 (retrotransposon protein)	Chr8	20985502	G	A	nonsynonymous	5.98E-05
					SNV	

\*The *p*-value was calculated by Tassel5 with MLM. SNPs with *p*-value less than 0.00006 were listed.

The significant nonsynonymous SNPs or SNPs located on UTR were highlighted in yellow background.



**Figure S1.** Cluster diagram of quality traits of different rice varieties.



**Figure S2.** Identification of LD block in chromosome 8 for peak gelatinization temperature (Tp).