

Supplementary Data

A genetic composition analysis of soybean sibling varieties Jidou17 and Jinf58

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Supplementary Table 1. List of 350 SSR markers used for molecular characterization of soybean genotypes with their information about bin location (cM), linkage group, chromosome number, genbank accession and motif.

Number	Marker	Bin Location(cM)	LG	Chr. NO.	GenBank Accession	Motif
1	Sat_137	0.00	A1	5	CC453692	(AT)16
2	Satt276 *	17.16	A1	5	BH126472	(ATT)19
3	Sat_344 *	19.38	A1	5	CC453870	(AT)9
4	Satt165	23.00	A1	5	BH126376	(ATT)18
5	Sat_369 *	27.18	A1	5	CC453895	(AT)28(GTAT)2
6	Satt526 *	27.98	A1	5	BH126696	(ATT)9
7	Satt454 *	28.08	A1	5	BH126628	(ATT)17
8	Satt364 *	28.96	A1	5	BH126552	(ATT)15
9	Satt300	30.93	A1	5	BH126491	(ATT)19
10	Satt591 *	31.14	A1	5	BH126757	(ATT)17
11	Satt155 *	32.68	A1	5	BH126367	(ATT)19
12	Satt073	33.97	A1	5	BH126321	(ATT)10
13	Sat_171 *	57.79	A1	5	CC453717	(AT)26
14	Satt648	59.18	A1	5	CC454003	(ATT)12
15	Satt619 *	69.21	A1	5	CC453983	(ATT)11
16	Satt599 *	85.58	A1	5	BH126764	(ATT)10
17	Satt174	88.58	A1	5	BH126383	(ATT)10
18	Satt200 *	92.89	A1	5	BH126407	(ATT)17
19	Satt511 *	94.20	A1	5	BH126682	(ATT)19
20	Satt258	95.54	A1	5	BH126456	(ATT)9
21	Sat_217	101.57	A1	5	CC453757	(AT)21
22	Sat_383	0	A2	8	CC453909	(AT)12
23	Satt390	9.143	A2	8	BH126575	(ATT)17
24	Sat_319	27.895	A2	8	CC453850	(AT)14
25	Sat_409 *	35.676	A2	8	CC453933	(AT)22
26	Satt177 *	36.77	A2	8	BH126385	(ATT)16
27	Sat_181 *	38.059	A2	8	CC453724	(AT)28
28	Satt632 *	51.505	A2	8	BH126793	(ATT)17
29	Sat_162	51.862	A2	8	BH126790	(AT)36
30	Satt187 *	54.917	A2	8	BH126394	(ATT)19
31	Satt424 *	60.585	A2	8	BH126603	(ATT)52

32	Satt341 *	77.695	A2	8	BH126532	(ATT)17
33	Sat_115 *	81.024	A2	8	BH126285	(AT)15
34	Sat_129	84.078	A2	8	BH126299	(ATT)28
35	Satt119	92.431	A2	8	BH126335	(ATT)13
36	Satt525	96.974	A2	8	BH126695	(ATT)19
37	Satt329	110.936	A2	8	BH126520	(ATT)23
38	Sat_097 *	122.048	A2	8	BH126269	(AT)15
39	Satt133	125.382	A2	8	BH126346	(ATT)10
40	Sat_294	131.97	A2	8	CC453827	(AT)23
41	Satt538	159.63	A2	8	BH126706	(ATT)12
42	Sat_272 *	14.32	B1	11	CC453806	(AT)19
43	Sat_270 *	21.99	B1	11	CC453804	(AT)29
44	Satt509 *	32.51	B1	11	BH126680	(ATT)30
45	Sat_261	32.95	B1	11	CC453796	(AT)25
46	Sat_247	49.73	B1	11	CC453785	(AT)21
47	Sat_095 *	81.31	B1	11	BH126267	(AT)48
48	Satt415	82.89	B1	11	BH126594	(ATT)18
49	Satt665 *	96.36	B1	11	CC454020	(ATT)18
50	Satt359	102.56	B1	11	BH126548	(ATT)15
51	Satt453	123.96	B1	11	BH126627	(ATT)13
52	Satt577 *	6.05	B2	14	BH126743	(ATT)12
53	Sat_264 *	12.56	B2	14	CC453799	(AT)27
54	Satt467	17.77	B2	14	BH126639	(ATT)16
55	Satt126	27.63	B2	14	BH126340	(ATT)18
56	Sat_287 *	31.88	B2	14	CC453820	(AT)28
57	Sct_034	51.45	B2	14	BH126774	(CT)13
58	Satt416	56.96	B2	14	BH126595	(ATT)30
59	Satt304 *	65.56	B2	14	BH126495	(ATT)29
60	Sat_355 *	66.24	B2	14	CC453881	(AT)27
61	Satt601	67.73	B2	14	BH126766	(ATT)13
62	Satt318	70.12	B2	14	BH126509	(ATT)16
63	Sct_094	70.56	B2	14	BH126777	(CT)20
64	Satt556 *	73.21	B2	14	BH126723	(ATT)14
65	Satt066 *	78.84	B2	14		(ATT)28
66	Sct_064	89.31	B2	14	BH126775	(CT)22
67	Sat_424 *	100.10	B2	14	CC453948	(AT)25
68	Satt565 *	0.00	C1	4	BH126731	(ATT)19
69	Satt690	5.36	C1	4	CC454042	(ATT)13
70	Sct_186	9.02	C1	4	BH126780	(CT)15
71	Satt396 *	24.11	C1	4	BH126579	(ATT)9
72	Satt194 *	26.35	C1	4	BH126401	(ATT)23
73	Satt607	67.03	C1	4	CC453974	(ATT)15
74	Satt190	73.32	C1	4	BH126397	(ATT)15
75	Satt361	75.52	C1	4	BH126549	(ATT)17

76	Satt294	78.65	C1	4	BH126487	(ATT)23
77	Satt476 *	80.62	C1	4	BH126648	(ATT)20
78	Sat_042 *	82.51	C1	4	BH126255	(AT)30
79	Satt670	85.37	C1	4	CC454023	(ATT)18
80	Sat_207 *	87.31	C1	4	CC453747	(AT)13
81	Sat_235 *	94.62	C1	4	CC453774	(AT)26
82	Satt524	120.12	C1	4	BH126694	(ATT)14
83	Satt164	132.46	C1	4	BH126375	(ATT)16
84	Satt681 *	3.15	C2	6	CC454034	(ATT)20
85	Sat_130	11.39	C2	6	BH126300	(AT)30
86	Satt227	26.65	C2	6	BH126428	(ATT)9
87	Sat_062 *	30.80	C2	6	BH126257	(AT)27
88	Satt432	38.05	C2	6	BH126610	(ATT)15
89	Satt281 *	40.30	C2	6	BH126476	(ATT)19
90	Satt291	45.76	C2	6	BH126484	(ATT)14
91	Satt457 *	56.51	C2	6	BH126630	(ATT)19
92	Satt305 *	69.67	C2	6	BH126496	(ATT)17
93	Satt322	82.23	C2	6	BH126513	(ATT)10
94	Satt450	89.31	C2	6	BH126624	(ATT)11
95	Sat_213 *	90.93	C2	6	CC453753	(AT)17
96	Sat_246 *	91.81	C2	6	CC453784	(AT)22(GT)10
97	Satt363	98.07	C2	6	BH126551	(ATT)19
98	Satt286	101.75	C2	6	BH126480	(ATT)17
99	Satt277	107.59	C2	6	BH126473	(ATT)40
100	Satt365	111.68	C2	6	BH126553	(ATT)26
101	Satt557	112.19	C2	6	BH126724	(ATT)17(GAT)4
102	Satt134	112.84	C2	6	BH126347	(ATT)11
103	Sat_312	112.85	C2	6	CC453844	(AT)22
104	Satt489	113.39	C2	6	BH126660	(ATT)23(GTT)8(ATT)8
105	Satt658	113.62	C2	6	CC454013	(ATT)11
106	Satt100	113.96	C2	6	BH126330	(ATT)33
107	Sat_251	114.20	C2	6	CC453787	(AT)19
108	Sat_142	115.10	C2	6	CC453696	(AT)11
109	Satt708	115.49	C2	6	CC454055	(ATT)27(GT)4
110	Sat_238	117.46	C2	6	CC453776	(AT)28
111	Satt460	117.77	C2	6	BH126633	(ATT)26
112	Satt079	117.87	C2	6	BH126324	(ATT)13
113	Sat_263	118.78	C2	6	CC453798	(AT)17(TC)6
114	Satt307	121.27	C2	6	BH126498	(ATT)12
115	Satt202	126.24	C2	6	BH126409	(ATT)15
116	Sat_252	127.00	C2	6	CC453788	(AT)25
117	Satt316	127.67	C2	6	BH126507	(ATT)12
118	Satt433	128.23	C2	6	BH126611	(ATT)16
119	Satt371 *	145.48	C2	6	BH126558	(ATT)11

120	Satt357	151.91	C2	6	BH126546	(ATT)12
121	Satt184 *	17.52	D1a	1	BH126391	(ATT)13
122	Sat_353	36.23	D1a	1	CC453879	(AT)22
123	Satt482	45.75	D1a	1	BH126654	(ATT)15
124	Satt502 *	49.84	D1a	1	BH126673	(ATT)16
125	Satt321	50.16	D1a	1	BH126512	(ATT)14
126	Satt169 *	50.55	D1a	1	CC453954	(ATT)15
127	Satt548 *	51.07	D1a	1	BH126715	(ATT)21
128	Satt603 *	54.50	D1a	1	BH126768	(ATT)23
129	Satt295 *	55.22	D1a	1	BH126488	(ATT)19
130	Satt515	55.68	D1a	1	BH126685	(ATT)14
131	Sat_201	56.08	D1a	1	CC453742	(AT)20
132	Satt179	56.20	D1a	1	BH126387	(ATT)25
133	Satt383	56.57	D1a	1	BH126568	(ATT)12
134	Satt267	57.34	D1a	1	BH126463	(ATT)16
135	Sat_036	75.25	D1a	1	CC453674	(AT)19
136	Satt077 *	77.49	D1a	1	BH126323	(ATT)12
137	Satt129	109.67	D1a	1	BH126343	(ATT)26
138	Sat_096	0.00	D1b	2	BH126268	(AT)21
139	Sat_279 *	3.79	D1b	2	CC453812	(AT)28
140	Satt216 *	9.80	D1b	2	BH126420	(ATT)19
141	Satt542 *	53.02	D1b	2	BH126710	(ATT)19
142	Sat_423	67.63	D1b	2	CC453947	(AT)9
143	Satt141	72.89	D1b	2	BH126353	(ATT)26
144	Satt290 *	73.35	D1b	2	BH126483	(ATT)16
145	Satt611 *	74.02	D1b	2	CC453976	(ATT)13
146	Satt604	74.21	D1b	2	BH126769	(ATT)11
147	Satt579	75.94	D1b	2	BH126745	(ATT)20
148	Satt350	76.60	D1b	2	BH126540	(ATT)17
149	Satt644	79.42	D1b	2	CC454001	(ATT)13
150	Satt546 *	87.20	D1b	2	BH126714	(ATT)20
151	Sat_139	93.35	D1b	2	CC453694	(AT)15
152	Satt703 *	98.75	D1b	2	CC454052	(ATT)29
153	Satt172 *	100.89	D1b	2	BH126381	(ATT)9
154	Sat_183	112.63	D1b	2	CC453726	(AT)28
155	Sat_198	118.95	D1b	2	CC453739	(AT)23
156	Sat_289 *	131.92	D1b	2	CC453822	(AT)24
157	Sat_296 *	6.42	D2	17	CC453829	(AT)32
158	Satt135	26.05	D2	17	BH126348	(ATT)19
159	Satt372 *	39.35	D2	17	BH126559	(ATT)21
160	Satt002	47.73	D2	17	BH146209	(ATT)25
161	Satt154	57.07	D2	17	BH126366	(ATT)20
162	Sat_222	76.69	D2	17	CC453762	(AT)21
163	Sat_114 *	84.18	D2	17	BH126284	(AT)29

164	Satt226	85.15	D2	17	BH126427	(ATT)18
165	Sat_209 *	85.64	D2	17	CC453749	(AT)25
166	Satt082 *	87.25	D2	17	BH126326	(ATT)13
167	Satt488	89.20	D2	17	BH126659	(ATT)16
168	Satt615 *	91.21	D2	17	CC453980	(ATT)24
169	Sat_001	92.12	D2	17	BH126252	(AT)17
170	Sat_354 *	93.71	D2	17	CC453880	(AT)39
171	Satt186 *	105.45	D2	17	BH126393	(ATT)19
172	Satt310 *	107.49	D2	17	BH126501	(ATT)14
173	Satt256	124.31	D2	17	BH126454	(ATT)10
174	Satt386	125.00	D2	17	BH126571	(ATT)15
175	Satt575	3.30	E	15	BH126741	(ATT)11
176	Sat_112 *	8.67	E	15	BH126282	(AT)8(GA)18
177	Sat_124 *	15.86	E	15	BH126294	(AT)34
178	Satt651 *	32.10	E	15	CC454006	(ATT)10
179	Satt212	32.27	E	15	BH126418	(ATT)10
180	Satt598	34.20	E	15	BH126763	(ATT)10
181	Satt573	35.79	E	15	BH126739	(ATT)10
182	Sat_172	42.74	E	15	CC453718	(AT)18
183	Satt268	44.27	E	15	BH126464	(ATT)17
184	Satt483	44.98	E	15	BH126655	(ATT)13
185	Satt117 *	45.78	E	15	BH126334	(ATT)11
186	Sat_381	64.18	E	15	CC453907	(AT)25
187	Satt230	71.31	E	15	BH126431	(ATT)15
188	Satt146	1.92	F	13	BH126358	(ATT)17
189	Satt325	2.23	F	13	BH126516	(ATT)19
190	Satt586 *	3.63	F	13	BH126752	(ATT)19
191	Satt423	20.56	F	13	BH126602	(ATT)19
192	Satt206	26.98	F	13	BH126412	(ATT)12
193	Sat_298	32.32	F	13	CC453831	(AT)28
194	Sat_309 *	41.47	F	13	CC453841	(AT)31
195	Satt425	43.44	F	13	BH126604	(ATT)12
196	Satt663	56.17	F	13	CC454018	(ATT)28
197	Satt114 *	63.69	F	13	BH126332	(ATT)17
198	Sat_317	72.97	F	13	CC453848	(AT)24
199	Satt335	77.70	F	13	BH126526	(ATT)12
200	Satt362 *	82.83	F	13	BH126550	(ATT)14
201	Sat_313 *	91.87	F	13	CC453845	(AT)18
202	Satt490 *	97.97	F	13	BH126661	(ATT)18
203	Satt144 *	102.08	F	13	BH126356	(ATT)18
204	Satt554	111.89	F	13	BH126721	(ATT)33
205	Satt395 *	146.42	F	13	BH126578	(ATT)10
206	Satt163	0.00	G	18	BH126374	(ATT)16
207	Satt309	4.53	G	18	BH126500	(ATT)13

208	Satt570	12.74	G	18	BH126736	(ATT)11
209	Satt130	23.10	G	18	BH126344	(ATT)14
210	Sat_290	29.03	G	18	CC453823	(AT)34
211	Sat_403 *	34.87	G	18	CC453927	(AT)34
212	Satt394	43.38	G	18	BH126577	(ATT)31
213	Sat_358	45.49	G	18	CC453884	(AT)33
214	Satt352 *	50.53	G	18	BH126541	(ATT)18
215	Satt427 *	51.69	G	18	BH126606	(ATT)15
216	Satt594 *	52.94	G	18	BH126760	(ATT)23
217	Satt504	59.83	G	18	BH126675	(ATT)21(ATTT)9
218	Sat_223	61.64	G	18	CC453763	(AT)24
219	Satt012 *	66.55	G	18	BH146213	(ATT)19
220	Sat_164 *	68.67	G	18	CC453711	(AT)19(CT)22
221	Satt503 *	68.77	G	18	BH126674	(ATT)18
222	Satt517 *	69.87	G	18	BH126687	(ATTT)9(ATT)25
223	Sat_143	73.42	G	18	CC453697	(AT)13
224	Satt288 *	76.77	G	18	BH126481	(ATT)17
225	Sct_199 *	94.40	G	18	CC454080	(CT)8(TC)17(AT)14
226	Satt191 *	96.57	G	18	BH126398	(ATT)18
227	Satt666	0.59	H	12	CC454021	(ATT)14
228	Sat_214 *	2.85	H	12	CC453754	(AT)31
229	Satt353	8.48	H	12	BH126542	(ATT)16
230	Satt442 *	46.95	H	12	BH146216	(ATT)35
231	Satt541	53.35	H	12	BH126709	(ATT)22
232	Sat_334	59.01	H	12	CC453861	(AT)21
233	Sat_122	61.33	H	12	BH126292	(AT)23
234	Sat_118	61.86	H	12	BH126288	(AT)23
235	Satt052	64.10	H	12	BH126316	(ATT)16
236	Satt222	68.08	H	12	BH126425	(ATT)20
237	Satt314 *	69.12	H	12	BH126505	(ATT)13
238	Satt629	72.18	H	12	CC453990	(ATT)12
239	Satt302	81.04	H	12	BH126493	(ATT)12
240	Satt317	89.52	H	12	BH126508	(ATT)20
241	Sat_218	99.50	H	12	CC453758	(AT)26
242	Satt367	27.98	I	20	BH126554	(ATT)21
243	Satt127	35.35	I	20	BH126341	(ATT)23
244	Sat_219 *	36.03	I	20	CC453759	(AT)26
245	Satt496 *	36.40	I	20	BH126667	(ATT)13
246	Satt239 *	36.94	I	20	BH126440	(ATT)22
247	Satt354 *	46.22	I	20	BH126543	(ATT)14
248	Satt270 *	50.11	I	20	BH126466	(ATT)16
249	Satt650	63.33	I	20	CC454005	(ATT)10
250	Satt162	86.74	I	20	BH126373	(ATT)16
251	Sat_155	98.06	I	20	CC453706	(AT)19

252	Satt148 *	100.78	I	20	BH126360	(ATT)16
253	Sct_189 *	113.77	I	20	BH126783	(CT)17
254	Satt249 *	11.74	J	16	CC453958	(ATT)20
255	Satt285 *	25.51	J	16	CC453960	(ATT)19
256	Sct_065 *	32.10	J	16	CC454072	(CT)16
257	Satt414	37.04	J	16	CC453965	(ATT)23
258	Satt406	38.19	J	16	CC453964	(ATT)31
259	Satt280	38.70	J	16	CC453959	(ATT)14
260	Satt132	39.18	J	16	CC453952	(ATT)18
261	Sat_259 *	40.34	J	16	CC453794	(AT)22
262	Satt686 *	40.50	J	16	CC454039	(ATT)14
263	Sat_412 *	41.11	J	16	CC453936	(AT)27
264	Sct_193 *	41.50	J	16	CC454076	(CT)19
265	Satt529 *	41.90	J	16	CC453969	(ATT)13
266	Sat_165 *	42.20	J	16	CC453712	(AT)19
267	Satt183 *	42.51	J	16	CC453955	(ATT)13
268	Satt215 *	44.08	J	16	CC453956	(ATT)11
269	Sct_001 *	44.68	J	16		(CT)13
270	Sat_366 *	52.84	J	16	CC453892	(AT)8
271	Satt621	53.68	J	16		(ATT)11
272	Satt620	53.71	J	16		(ATT)15
273	Satt244	65.04	J	16	CC453957	(ATT)27
274	Satt547 *	67.79	J	16	CC453970	(ATT)18(ACT)3
275	Sat_396 *	69.30	J	16	CC453921	(AT)35
276	Satt431	78.57	J	16	CC453966	(ATT)21
277	Sat_144	90.13	J	16		(AT)24(GA)11
278	Satt539	1.80	K	9	BH126707	(ATT)11
279	Sat_087 *	4.85	K	9	CC453685	(AT)19(GT)7
280	Satt242	14.35	K	9	BH126443	(ATT)26
281	Satt102 *	30.28	K	9	BH126331	(ATT)11
282	Sat_281	45.14	K	9	CC453814	(AT)17
283	Satt167	45.74	K	9	BH126378	(ATT)25
284	Satt441	46.20	K	9	BH126618	(ATT)32
285	Satt326	49.53	K	9	BH126517	(ATT)18
286	Sat_043	61.67	K	9	CC453677	
287	Satt499 *	71.01	K	9	BH126670	(ATT)25
288	Satt475 *	78.68	K	9	BH126647	(ATT)16
289	Sat_243 *	86.78	K	9	CC453781	(AT)20
290	Sat_293 *	99.10	K	9	CC453826	(AT)26
291	Sat_126 *	108.20	K	9	BH126296	(AT)17
292	Satt588 *	117.02	K	9	BH126754	(ATT)18(AT)10(CT)14
293	Satt723	1.07	L	19	CC454065	(ATT)15
294	Satt232 *	10.35	L	19	BH126433	(ATT)28
295	Satt182 *	14.03	L	19	BH126390	(ATT)17

296	Satt238	19.93	L	19	BH126439	(ATT)12
297	Sat_134	28.27	L	19	BH126304	(AT)35
298	Satt143 *	30.19	L	19	BH126355	(ATT)18
299	Satt313 *	34.54	L	19	BH126504	(ATT)14
300	Satt613 *	36.05	L	19	CC453978	(GTT)8(ATT)3(GTT)3(ATT)12
301	Satt284	38.16	L	19	BH126479	(ATT)15
302	Satt462	41.00	L	19	BH126635	(ATT)20(AT)24
303	Satt481	54.57	L	19	BH126653	(ATT)14
304	Satt166 *	66.51	L	19	BH126377	(ATT)19
305	Sat_113 *	68.26	L	19	BH126283	(AT)24
306	Satt229 *	93.89	L	19	BH126430	(ATT)22
307	Satt373	107.24	L	19	BH126560	(ATT)21
308	Sat_389 *	0.00	M	7	CC453914	(AT)29
309	Satt636 *	5.00	M	7	CC453995	(ATT)22
310	Satt590 *	7.84	M	7	BH126756	(ATT)26
311	Satt201 *	13.56	M	7	BH126408	(ATT)16
312	Satt150 *	18.58	M	7	BH126362	(ATT)20
313	Satt540	35.85	M	7	BH126708	(ATT)12
314	Satt435 *	38.94	M	7	BH126613	(ATT)15
315	Sat_244	48.86	M	7	CC453782	(AT)27
316	Satt463	50.10	M	7	BH126636	(ATT)19(CAA)17(ATT)13
317	Satt626	58.60	M	7	CC453988	(ATT)14
318	Sat_003	62.31	M	7	BH126253	(AT)21
319	Satt175	66.99	M	7	BH126384	(ATT)16
320	Satt494	71.71	M	7	BH126665	(ATT)13
321	Sat_256	74.53	M	7	CC453792	(AT)30
322	Satt306 *	80.02	M	7	BH126497	(ATT)13
323	Satt697 *	85.35	M	7	CC454046	(ATT)11
324	Satt551 *	95.45	M	7	BH126718	(ATT)12
325	Sat_121	103.98	M	7	BH126291	(AT)30
326	Sat_147 *	122.37	M	7	CC453699	(AT)12
327	Satt308 *	130.76	M	7	BH126499	(ATT)21
328	Sat_359 *	139.81	M	7	CC453885	(AT)21
329	Sat_379	4.33	N	3	CC453905	(AT)10
330	Sat_033 *	58.38	N	3	BH146206	(AT)16
331	Satt521 *	65.46	N	3	BH126691	(ATT)12
332	Satt660 *	72.60	N	3	CC454015	(ATT)11
333	Sat_239	87.35	N	3	CC453777	(AT)17
334	Satt358	5.44	O	10	BH126547	(ATT)18
335	Satt487	9.53	O	10	BH126658	(ATT)22
336	Satt492	17.25	O	10	BH126663	(ATT)15
337	Satt445	20.43	O	10	BH126620	(ATT)23
338	Sat_318	24.61	O	10	CC453849	(AT)28

339	Satt347 *	42.29	O	10	BH126537	(ATT)11
340	Satt420 *	49.71	O	10	BH126599	(ATT)16
341	Satt550 *	55.09	O	10	BH126717	(ATT)16
342	Satt094	56.58	O	10	BH126328	(ATT)18
343	Satt173 *	58.40	O	10	BH126382	(ATT)18
344	Satt345 *	59.43	O	10	BH126535	(ATT)27
345	Sat_341 *	67.93	O	10	CC453867	(AT)30
346	Satt563	68.39	O	10	BH126729	(ATT)18
347	Sat_038 *	112.17	O	10	CC453675	(AT)20
348	Satt243 *	119.50	O	10	BH126444	(ATT)17
349	Sat_307 *	123.43	O	10	CC453839	(AT)34
350	Sat_190	129.80	O	10	CC453731	(AT)9

* stands for polymorphic marker.

Supplementary Table 2. List of 58 SSR markers used for molecular characterization of soybean genotypes with their information about linkage group, chromosome number, start position, end position and motif.

Number	Marker	LG	Chr. NO.	Start position	End position	Motif
1	BARCSOYSSR_14_0410	B2	14	7230448	7230471	(TC)12
2	BARCSOYSSR_14_0440 *	B2	14	7818051	7818076	(AG)13
3	BARCSOYSSR_14_0447 *	B2	14	7900776	7900801	(TA)13
4	BARCSOYSSR_14_0480 *	B2	14	8562661	8562684	(GAT)8
5	BARCSOYSSR_14_0500	B2	14	9020301	9020324	(AGT)8
6	BARCSOYSSR_04_1142	C1	4	42578368	42578389	(TA)11
7	BARCSOYSSR_04_1172 *	C1	4	43039733	43039774	(AT)21
8	BARCSOYSSR_04_1181 *	C1	4	43384228	43384253	(TA)13
9	BARCSOYSSR_04_1201 *	C1	4	43637090	43637109	(TA)10
10	BARCSOYSSR_04_1214	C1	4	43812849	43812872	(AT)12
11	BARCSOYSSR_04_1224	C1	4	43922847	43922898	(AT)26
12	BARCSOYSSR_04_1235	C1	4	44074843	44074880	(AT)19
13	BARCSOYSSR_04_1249	C1	4	44326238	44326273	(TA)18
14	BARCSOYSSR_04_1258	C1	4	44661802	44661855	(TA)27
15	BARCSOYSSR_04_1259	C1	4	44678495	44678526	(TA)16
16	BARCSOYSSR_04_1261 *	C1	4	44727085	44727110	(AT)13

17	BARCSOYSSR_04_1262	C1	4	44736565	44736586	(TA)11
18	BARCSOYSSR_04_1263 *	C1	4	44753713	44753736	(TA)12
19	BARCSOYSSR_04_1264	C1	4	44775896	44775915	(CT)10
20	BARCSOYSSR_04_1265 *	C1	4	44781527	44781572	(AT)23
21	BARCSOYSSR_04_1266 *	C1	4	44805569	44805610	(AT)21
22	BARCSOYSSR_04_1267 *	C1	4	44818063	44818110	(AT)24
23	BARCSOYSSR_04_1283	C1	4	45079727	45079753	(AAC)9
24	BARCSOYSSR_04_1299 *	C1	4	45583685	45583728	(TA)22
25	BARCSOYSSR_04_1300 *	C1	4	45633663	45633682	(AT)10
26	BARCSOYSSR_04_1301	C1	4	45653607	45653636	(TA)15
27	BARCSOYSSR_04_1302	C1	4	45686549	45686568	(TA)10
28	BARCSOYSSR_04_1304	C1	4	45722462	45722521	(TA)30
29	BARCSOYSSR_04_1305	C1	4	45796876	45796895	(TA)10
30	BARCSOYSSR_04_1306 *	C1	4	45808212	45808245	(TA)17
31	BARCSOYSSR_04_1328	C1	4	46316373	46316442	(TA)35
32	BARCSOYSSR_06_0162 *	C2	6	2935114	2935165	(AT)26
33	BARCSOYSSR_06_0191 *	C2	6	3489145	3489166	(AG)11
34	BARCSOYSSR_06_1070	C2	6	20796569	20796644	(TC)17(TA)21
35	BARCSOYSSR_02_0247 *	D1b	2	4617041	4617070	(TA)15
36	BARCSOYSSR_02_1515	D2b	2	46008582	46008607	(AT)13
37	BARCSOYSSR_20_0925	I	20	36426463	36426482	(AT)10
38	BARCSOYSSR_20_0926	I	20	36461265	36461308	(TA)22
39	BARCSOYSSR_16_0900 *	J	16	28818484	28818543	(ATG)20
40	BARCSOYSSR_16_0920 *	J	16	29314546	29314565	(TC)10
41	BARCSOYSSR_16_1010 *	J	16	30697415	30697454	(TA)20
42	BARCSOYSSR_16_1023 *	J	16	30854602	30854647	(TA)23
43	BARCSOYSSR_16_1029 *	J	16	30898779	30898814	(TA)18
44	BARCSOYSSR_16_1031 *	J	16	30913385	30913418	(TA)17
45	BARCSOYSSR_16_1033 *	J	16	30955786	30955837	(AT)26

46	BARCSOYSSR_16_1036 *	J	16	30989917	30989950	(AT)17
47	BARCSOYSSR_16_1038	J	16	31070002	31070047	(CA)10(TA)13
48	BARCSOYSSR_16_1039	J	16	31081653	31081685	(TTC)11
49	BARCSOYSSR_16_1040 *	J	16	31117973	31117994	(TA)11
50	BARCSOYSSR_16_1041 *	J	16	31126341	31126378	(AT)19
51	BARCSOYSSR_16_1042 *	J	16	31141258	31141311	(TAA)18
52	BARCSOYSSR_16_1043 *	J	16	31143639	31143688	(TA)25
53	BARCSOYSSR_16_1049 *	J	16	31337521	31337565	(TAT)15
54	BARCSOYSSR_16_1059 *	J	16	31571350	31571389	(AT)20
55	BARCSOYSSR_16_1065 *	J	16	31698956	31699021	(TA)33
56	BARCSOYSSR_16_1070	J	16	31781028	31781061	(GA)17
57	BARCSOYSSR_16_1090 *	J	16	32144613	32144640	(AT)14
58	BARCSOYSSR_16_1110 *	J	16	32357031	32357060	(TA)15

* stands for polymorphic marker.