

**Supplementary Table 1.** Disease incidence degree at leaf blast nursery test for 296 Korean rice varieties from 2018 to 2020.

No.	Variety name	Year released	Subspecies	Maturity type	2018	2019	2020	Mean±S.D
1	Sobaegbyeo	1982	<i>Japonica type</i>	Early maturing type	2	1	5	2.7±2.1
2	Odaebyeo	1982	<i>Japonica type</i>	Early maturing type	2	1	6	3.0±2.6
3	Unbongbyeo	1985	<i>Japonica type</i>	Early maturing type	3	5	7	5.0±2.0
4	Geumobyeyo	1988	<i>Japonica type</i>	Early maturing type	3	3	5	3.7±1.2
5	Jinmibyeo	1989	<i>Japonica type</i>	Early maturing type	6	7	9	7.3±1.5
6	Obongbyeo	1989	<i>Japonica type</i>	Early maturing type	7	5	9	7.0±2.0
7	Namwonbyeo	1989	<i>Japonica type</i>	Early maturing type	3	3	4	3.3±0.6
8	Jinbuchalbyeo	1990	<i>Japonica type</i>	Early maturing type	5	3	4	4.0±1.0
9	Jinbubyeyo	1991	<i>Japonica type</i>	Early maturing type	2	3	4	3.0±1.0
10	Jinbuolbyeo	1991	<i>Japonica type</i>	Early maturing type	5	3	5	4.3±1.2
11	Sinunbongbyeo	1991	<i>Japonica type</i>	Early maturing type	2	1	5	2.7±2.1
12	Sangjubyeo	1991	<i>Japonica type</i>	Early maturing type	3	3	5	3.7±1.2
13	Dunnaebyeo	1992	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
14	Joryeongbyeo	1992	<i>Japonica type</i>	Early maturing type	9	9	9	9.0±0.0
15	Unjangbyeo	1994	<i>Japonica type</i>	Early maturing type	3	1	6	3.3±2.5
16	Samcheonbyeo	1995	<i>Japonica type</i>	Early maturing type	3	1	3	2.3±1.2
17	Junghwabyeo	1995	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
18	Keumobyeyo 2ho	1996	<i>Japonica type</i>	Early maturing type	3	5	6	4.7±1.5
19	Gurubyeyo	1997	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
20	Heukjinjubyeo	1997	<i>Japonica type</i>	Early maturing type	5	5	7	5.7±1.2
21	Sangjuchalbyeo	1997	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
22	Undoobyeyo	1998	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
23	Mananbyeo	1998	<i>Japonica type</i>	Early maturing type	4	1	7	4.0±3.0
24	Jeogjinju	2000	<i>Japonica type</i>	Early maturing type	6	5	8	6.3±1.5
25	Taebong	2000	<i>Japonica type</i>	Early maturing type	2	1	3	2.0±1.0
26	Jungsan	2000	<i>Japonica type</i>	Early maturing type	6	1	4	3.7±2.5
27	Saesangchu	2001	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
28	Manchu	2001	<i>Japonica type</i>	Early maturing type	5	3	4	4.0±1.0
29	Manho	2002	<i>Japonica type</i>	Early maturing type	7	3	9	6.3±3.1
30	Namil	2002	<i>Japonica type</i>	Early maturing type	5	5	8	6.0±1.7
31	Joan	2003	<i>Japonica type</i>	Early maturing type	3	1	5	3.0±2.0
32	Heugkwang	2003	<i>Japonica type</i>	Early maturing type	9	9	9	9.0±0.0
33	Goun	2004	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
34	Unkwang	2004	<i>Japonica type</i>	Early maturing type	4	1	8	4.3±3.5
35	Josaengheugchal	2004	<i>Japonica type</i>	Early maturing type	6	5	6	5.7±0.6
36	Odae1ho	2005	<i>Japonica type</i>	Early maturing type	3	1	5	3.0±2.0
37	Sinunbong 1ho	2005	<i>Japonica type</i>	Early maturing type	3	1	3	2.3±1.2
38	Manna	2005	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
39	Keumo3ho	2005	<i>Japonica type</i>	Early maturing type	3	1	2	2.0±1.0
40	Hwangkeumbora	2006	<i>Japonica type</i>	Early maturing type	6	3	9	6.0±3.0
41	Sandeuljinmi	2006	<i>Japonica type</i>	Early maturing type	3	5	4	4.0±1.0
42	Pyeongwon	2007	<i>Japonica type</i>	Early maturing type	3	3	3	3.0±0.0
43	Unmi	2007	<i>Japonica type</i>	Early maturing type	3	3	5	3.7±1.2
44	Handeul	2007	<i>Japonica type</i>	Early maturing type	3	1	5	3.0±2.0

Supplementary Table 1. Continued.

No.	Variety name	Year released	Subspecies	Maturity type	2018	2019	2020	Mean±S.D
45	Jogwang	2007	<i>Japonica type</i>	Early maturing type	3	1	3	2.3±1.2
46	BoSeog	2008	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
47	Joami	2008	<i>Japonica type</i>	Early maturing type	3	1	3	2.3±1.2
48	Hanseol	2009	<i>Japonica type</i>	Early maturing type	6	7	8	7.0±1.0
49	Joun	2009	<i>Japonica type</i>	Early maturing type	5	3	4	4.0±1.0
50	Geumyoung	2009	<i>Japonica type</i>	Early maturing type	4	1	4	3.0±1.7
51	Manjong	2009	<i>Japonica type</i>	Early maturing type	7	5	8	6.7±1.5
52	Wolbaek	2010	<i>Japonica type</i>	Early maturing type	3	1	3	2.3±1.2
53	Seolbaek	2010	<i>Japonica type</i>	Early maturing type	3	1	3	2.3±1.2
54	Jopyeong	2010	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
55	Jeogjinjuchal	2010	<i>Japonica type</i>	Early maturing type	7	9	9	8.3±1.2
56	Cheongbaekchal	2010	<i>Japonica type</i>	Early maturing type	3	1	3	2.3±1.2
57	Seolemi	2011	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
58	Joeunheukmi	2011	<i>Japonica type</i>	Early maturing type	3	1	3	2.3±1.2
59	Saeodae	2012	<i>Japonica type</i>	Early maturing type	5	1	3	3.0±2.0
60	Jinseolchal	2012	<i>Japonica type</i>	Early maturing type	6	1	4	3.7±2.5
61	Jungmo1024ho	2012	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
62	Sanhomi	2012	<i>Japonica type</i>	Early maturing type	3	1	6	3.3±2.5
63	Hwawang	2012	<i>Japonica type</i>	Early maturing type	9	9	9	9.0±0.0
64	Nunkeunheugchal	2012	<i>Japonica type</i>	Early maturing type	5	7	3	5.0±2.0
65	Asemi	2013	<i>Japonica type</i>	Early maturing type	9	9	8	8.7±0.6
66	Ondami	2013	<i>Japonica type</i>	Early maturing type	6	1	2	3.0±2.6
67	Jungmo1032	2013	<i>Japonica type</i>	Early maturing type	9	9	6	8.0±1.7
68	Jinok	2013	<i>Japonica type</i>	Early maturing type	2	1	6	3.0±2.6
69	Baegilmi	2014	<i>Japonica type</i>	Early maturing type	2	1	1	1.3±0.6
70	Asemi1ho	2014	<i>Japonica type</i>	Early maturing type	3	1	6	3.3±2.5
71	Haedamssal	2014	<i>Japonica type</i>	Early maturing type	4	1	4	3.0±1.7
72	Nunkeunheugchal1ho	2014	<i>Japonica type</i>	Early maturing type	3	1	7	3.7±3.1
73	Unilchal	2014	<i>Japonica type</i>	Early maturing type	4	1	5	3.3±2.1
74	Jungmo1043	2014	<i>Japonica type</i>	Early maturing type	7	5	7	6.3±1.2
75	Jinhan	2015	<i>Japonica type</i>	Early maturing type	4	1	4	3.0±1.7
76	Jopum	2015	<i>Japonica type</i>	Early maturing type	5	1	4	3.3±2.1
77	Joil	2015	<i>Japonica type</i>	Early maturing type	3	1	4	2.7±1.5
78	Danpyeng	2015	<i>Japonica type</i>	Early maturing type	2	1	2	1.7±0.6
79	Unbaekchal	2015	<i>Japonica type</i>	Early maturing type	3	1	3	2.3±1.2
80	Jinkwang	2016	<i>Japonica type</i>	Early maturing type	5	3	7	5.0±2.0
81	Seongsan	2016	<i>Japonica type</i>	Early maturing type	3	1	5	3.0±2.0
82	Jonong	2016	<i>Japonica type</i>	Early maturing type	9	3	8	6.7±3.2
83	Shinpyeong	2016	<i>Japonica type</i>	Early maturing type	3	1	5	3.0±2.0
84	CW92-MR	2016	<i>Japonica type</i>	Early maturing type	5	1	3	3.0±2.0
85	Haedeul	2017	<i>Japonica type</i>	Early maturing type	7	1	6	4.7±3.2
86	Sinseonchalbyeo	1982	<i>Japonica type</i>	Medium maturing type	4	1	5	3.3±2.1
87	Gihobyeo	1983	<i>Japonica type</i>	Medium maturing type	4	1	4	3.0±1.7
88	Hwaseongbyeo	1985	<i>Japonica type</i>	Medium maturing type	5	3	6	4.7±1.5

Supplementary Table 1. Continued.

No.	Variety name	Year released	Subspecies	Maturity type	2018	2019	2020	Mean±S.D
89	Yeongdeogbyeo	1985	<i>Japonica type</i>	Medium maturing type	6	5	8	6.3±1.5
90	Palgongbyeo	1986	<i>Japonica type</i>	Medium maturing type	7	5	8	6.7±1.5
91	Hwajinbyeo	1988	<i>Japonica type</i>	Medium maturing type	7	5	7	6.3±1.2
92	Sangnambatbyeo	1988	<i>Japonica type</i>	Medium maturing type	3	3	6	4.0±1.7
93	Jannganbyeo	1989	<i>Japonica type</i>	Medium maturing type	6	1	6	4.3±2.9
94	Seoanbyeo	1990	<i>Japonica type</i>	Medium maturing type	7	1	5	4.3±3.1
95	Hwayeongbyeo	1991	<i>Japonica type</i>	Medium maturing type	6	3	8	5.7±2.5
96	Hwaseonchalbyeo	1992	<i>Japonica type</i>	Medium maturing type	7	5	8	6.7±1.5
97	Gancheokbyeo	1992	<i>Japonica type</i>	Medium maturing type	7	5	7	6.3±1.2
98	Hwajungbyeo	1993	<i>Japonica type</i>	Medium maturing type	7	7	9	7.7±1.2
99	Daeripbyeo Iho	1993	<i>Japonica type</i>	Medium maturing type	7	5	9	7.0±2.0
100	Nonganbyeo	1993	<i>Japonica type</i>	Medium maturing type	3	1	4	2.7±1.5
101	Juanbyeo	1994	<i>Japonica type</i>	Medium maturing type	7	7	8	7.3±0.6
102	Keumobyeo Iho	1995	<i>Japonica type</i>	Medium maturing type	7	3	8	6.0±2.6
103	Naepungbyeo	1995	<i>Japonica type</i>	Medium maturing type	9	3	7	6.3±3.1
104	Daejinbyeo	1996	<i>Japonica type</i>	Medium maturing type	3	1	5	3.0±2.0
105	Surabyeo	1998	<i>Japonica type</i>	Medium maturing type	5	1	3	3.0±2.0
106	Hwabongbyeo	1998	<i>Japonica type</i>	Medium maturing type	7	1	4	4.0±3.0
107	Jinpum	1999	<i>Japonica type</i>	Medium maturing type	7	7	9	7.7±1.2
108	Sobi	1999	<i>Japonica type</i>	Medium maturing type	6	3	7	5.3±2.1
109	Seolhyangchal	1999	<i>Japonica type</i>	Medium maturing type	6	5	7	6.0±1.0
110	Sampyeong	2000	<i>Japonica type</i>	Medium maturing type	3	1	4	2.7±1.5
111	Hwaan	2000	<i>Japonica type</i>	Medium maturing type	7	3	6	5.3±2.1
112	Manpung	2000	<i>Japonica type</i>	Medium maturing type	9	7	9	8.3±1.2
113	Haepyeong	2000	<i>Japonica type</i>	Medium maturing type	6	3	8	5.7±2.5
114	Saegyeohwa	2001	<i>Japonica type</i>	Medium maturing type	5	3	7	5.0±2.0
115	Manweol	2001	<i>Japonica type</i>	Medium maturing type	6	3	7	5.3±2.1
116	Youngan	2001	<i>Japonica type</i>	Medium maturing type	4	1	6	3.7±2.5
117	Geuman	2002	<i>Japonica type</i>	Medium maturing type	3	1	3	2.3±1.2
118	Daepyeong	2002	<i>Japonica type</i>	Medium maturing type	4	1	5	3.3±2.1
119	Samdeog	2002	<i>Japonica type</i>	Medium maturing type	5	3	8	5.3±2.5
120	Pungmi	2004	<i>Japonica type</i>	Medium maturing type	6	3	7	5.3±2.1
121	Boseogchal	2004	<i>Japonica type</i>	Medium maturing type	5	3	6	4.7±1.5
122	Haepyeongchal	2004	<i>Japonica type</i>	Medium maturing type	4	3	5	4.0±1.0
123	SeoanIho	2005	<i>Japonica type</i>	Medium maturing type	7	5	7	6.3±1.2
124	Geunnun	2005	<i>Japonica type</i>	Medium maturing type	9	7	5	7.0±2.0
125	Cheonga	2006	<i>Japonica type</i>	Medium maturing type	7	7	7	7.0±0.0
126	Gangbaek	2006	<i>Japonica type</i>	Medium maturing type	5	1	3	3.0±2.0
127	Haechanmulgyeol	2006	<i>Japonica type</i>	Medium maturing type	3	3	3	3.0±0.0
128	Donghaejinmi	2006	<i>Japonica type</i>	Medium maturing type	4	5	7	5.3±1.5
129	Cheongdam	2006	<i>Japonica type</i>	Medium maturing type	9	7	9	8.3±1.2
130	HONGJINJU	2006	<i>Japonica type</i>	Medium maturing type	7	5	9	7.0±2.0
131	Nunbora	2006	<i>Japonica type</i>	Medium maturing type	4	3	6	4.3±1.5
132	Cheongan	2007	<i>Japonica type</i>	Medium maturing type	7	5	9	7.0±2.0

Supplementary Table 1. Continued.

No.	Variety name	Year released	Subspecies	Maturity type	2018	2019	2020	Mean±S.D
133	Borami	2007	<i>Japonica type</i>	Medium maturing type	5	3	8	5.3±2.5
134	Goami3ho	2007	<i>Japonica type</i>	Medium maturing type	9	9	9	9.0±0.0
135	Heugseol	2007	<i>Japonica type</i>	Medium maturing type	9	9	8	8.7±0.6
136	Haeoreumi	2008	<i>Japonica type</i>	Medium maturing type	5	5	8	6.0±1.7
137	Boseogheugchal	2008	<i>Japonica type</i>	Medium maturing type	7	7	8	7.3±0.6
138	Migwang	2009	<i>Japonica type</i>	Medium maturing type	4	1	3	2.7±1.5
139	Cheongnam	2009	<i>Japonica type</i>	Medium maturing type	7	7	8	7.3±0.6
140	Suryeojinmi	2010	<i>Japonica type</i>	Medium maturing type	3	3	8	4.7±2.9
141	Gangchan	2010	<i>Japonica type</i>	Medium maturing type	9	5	7	7.0±2.0
142	Suan	2010	<i>Japonica type</i>	Medium maturing type	4	3	7	4.7±2.1
143	Shinbaeg	2010	<i>Japonica type</i>	Medium maturing type	7	5	9	7.0±2.0
144	Dongbo	2010	<i>Japonica type</i>	Medium maturing type	5	3	8	5.3±2.5
145	Jungsaenggold	2011	<i>Japonica type</i>	Medium maturing type	5	5	8	6.0±1.7
146	Seonhyangheukmi	2011	<i>Japonica type</i>	Medium maturing type	9	9	9	9.0±0.0
147	Daebo	2011	<i>Japonica type</i>	Medium maturing type	5	3	8	5.3±2.5
148	Geonyang2ho	2012	<i>Japonica type</i>	Medium maturing type	4	3	9	5.3±3.2
149	Dabo	2012	<i>Japonica type</i>	Medium maturing type	5	5	7	5.7±1.2
150	Dodamssal	2013	<i>Japonica type</i>	Medium maturing type	9	9	8	8.7±0.6
151	Bodrami	2013	<i>Japonica type</i>	Medium maturing type	5	3	6	4.7±1.5
152	Sinbo	2013	<i>Japonica type</i>	Medium maturing type	5	3	7	5.0±2.0
153	Jungmo1034	2013	<i>Japonica type</i>	Medium maturing type	5	5	7	5.7±1.2
154	Haepum	2013	<i>Japonica type</i>	Medium maturing type	5	5	8	6.0±1.7
155	Seonpum	2014	<i>Japonica type</i>	Medium maturing type	4	3	6	4.3±1.5
156	Youngbo	2014	<i>Japonica type</i>	Medium maturing type	4	3	7	4.7±2.1
157	Samkwang1ho	2015	<i>Japonica type</i>	Medium maturing type	4	3	8	5.0±2.6
158	Cheongpum	2015	<i>Japonica type</i>	Medium maturing type	3	3	7	4.3±2.3
159	Sangbo	2015	<i>Japonica type</i>	Medium maturing type	7	7	9	7.7±1.2
160	Heuginmi	2015	<i>Japonica type</i>	Medium maturing type	9	5	9	7.7±2.3
161	Boramchal	2015	<i>Japonica type</i>	Medium maturing type	6	5	8	6.3±1.5
162	Jeogjinju2ho	2017	<i>Japonica type</i>	Medium maturing type	4	3	7	4.7±2.1
163	Dongjinbyeo	1981	<i>Japonica type</i>	Mid-late maturing type	6	1	2	3.0±2.6
164	Daecheongbyeo	1984	<i>Japonica type</i>	Mid-late maturing type	5	1	2	2.7±2.1
165	Tamjinbyeo	1988	<i>Japonica type</i>	Mid-late maturing type	4	1	2	2.3±1.5
166	Kyehwabyeo	1989	<i>Japonica type</i>	Mid-late maturing type	4	1	3	2.7±1.5
167	Ilpumbyeo	1990	<i>Japonica type</i>	Mid-late maturing type	9	7	9	8.3±1.2
168	Manguembyeo	1991	<i>Japonica type</i>	Mid-late maturing type	9	9	9	9.0±0.0
169	Hwanambyeo	1993	<i>Japonica type</i>	Mid-late maturing type	6	1	2	3.0±2.6
170	Daeambyeo	1994	<i>Japonica type</i>	Mid-late maturing type	7	5	4	5.3±1.5
171	Yangjobyeo	1994	<i>Japonica type</i>	Mid-late maturing type	5	1	4	3.3±2.1
172	Hwasinbyeo	1995	<i>Japonica type</i>	Mid-late maturing type	7	7	7	7.0±0.0
173	Hyangnambyeo	1995	<i>Japonica type</i>	Mid-late maturing type	7	5	7	6.3±1.2
174	Ilmibyeo	1995	<i>Japonica type</i>	Mid-late maturing type	4	3	3	3.3±0.6
175	Donganbyeo	1996	<i>Japonica type</i>	Mid-late maturing type	4	3	4	3.7±0.6
176	Hwasambyeo	1996	<i>Japonica type</i>	Mid-late maturing type	5	5	7	5.7±1.2

Supplementary Table 1. Continued.

No.	Variety name	Year released	Subspecies	Maturity type	2018	2019	2020	Mean±S.D
177	Daesanbyeo	1996	<i>Japonica type</i>	Mid-late maturing type	5	3	4	4.0±1.0
178	Nampyeongbyeo	1997	<i>Japonica type</i>	Mid-late maturing type	7	7	7	7.0±0.0
179	Heugnambyeo	1997	<i>Japonica type</i>	Mid-late maturing type	7	7	9	7.7±1.2
180	Aranghangchalbyeo	1997	<i>Japonica type</i>	Mid-late maturing type	7	5	7	6.3±1.2
181	Hoanbyeo	1998	<i>Japonica type</i>	Mid-late maturing type	4	1	3	2.7±1.5
182	Dongjinchal	1998	<i>Japonica type</i>	Mid-late maturing type	7	7	7	7.0±0.0
183	Mihyangbyeo	1998	<i>Japonica type</i>	Mid-late maturing type	7	5	6	6.0±1.0
184	Sindongjin	1999	<i>Japonica type</i>	Mid-late maturing type	5	3	7	5.0±2.0
185	Sujin	1999	<i>Japonica type</i>	Mid-late maturing type	3	1	3	2.3±1.2
186	Hojin	2000	<i>Japonica type</i>	Mid-late maturing type	5	1	4	3.3±2.1
187	Heughyang	2000	<i>Japonica type</i>	Mid-late maturing type	9	9	8	8.7±0.6
188	Junam	2000	<i>Japonica type</i>	Mid-late maturing type	6	5	8	6.3±1.5
189	Goami	2000	<i>Japonica type</i>	Mid-late maturing type	6	3	4	4.3±1.5
190	Dongin 1 ho	2001	<i>Japonica type</i>	Mid-late maturing type	4	5	7	5.3±1.5
191	Baekjinju	2001	<i>Japonica type</i>	Mid-late maturing type	9	9	9	9.0±0.0
192	Seolgaeng	2001	<i>Japonica type</i>	Mid-late maturing type	9	9	9	9.0±0.0
193	Goami2ho	2002	<i>Japonica type</i>	Mid-late maturing type	9	9	9	9.0±0.0
194	Manmi	2002	<i>Japonica type</i>	Mid-late maturing type	7	5	8	6.7±1.5
195	Samkwang	2003	<i>Japonica type</i>	Mid-late maturing type	5	3	8	5.3±2.5
196	Hopyung	2003	<i>Japonica type</i>	Mid-late maturing type	9	9	9	9.0±0.0
197	Seopyeong	2003	<i>Japonica type</i>	Mid-late maturing type	4	3	7	4.7±2.1
198	Hwarang	2003	<i>Japonica type</i>	Mid-late maturing type	4	1	3	2.7±1.5
199	Gopum	2004	<i>Japonica type</i>	Mid-late maturing type	4	1	6	3.7±2.5
200	Cheongho	2004	<i>Japonica type</i>	Mid-late maturing type	4	3	5	4.0±1.0
201	Hanmaeum	2004	<i>Japonica type</i>	Mid-late maturing type	6	3	8	5.7±2.5
202	Pungmi 1ho	2005	<i>Japonica type</i>	Mid-late maturing type	4	5	6	5.0±1.0
203	Onnuri	2005	<i>Japonica type</i>	Mid-late maturing type	5	5	8	6.0±1.7
204	Hanam	2005	<i>Japonica type</i>	Mid-late maturing type	4	5	8	5.7±2.1
205	Dongjin2	2005	<i>Japonica type</i>	Mid-late maturing type	4	3	7	4.7±2.1
206	Baegjinju 1ho	2005	<i>Japonica type</i>	Mid-late maturing type	5	1	4	3.3±2.1
207	Hwangkeumnuri	2006	<i>Japonica type</i>	Mid-late maturing type	6	5	8	6.3±1.5
208	Dami	2006	<i>Japonica type</i>	Mid-late maturing type	5	3	8	5.3±2.5
209	Malgeumi	2006	<i>Japonica type</i>	Mid-late maturing type	5	3	6	4.7±1.5
210	Hopum	2006	<i>Japonica type</i>	Mid-late maturing type	4	5	6	5.0±1.0
211	Saenuri	2007	<i>Japonica type</i>	Mid-late maturing type	5	5	9	6.3±2.3
212	Chilbo	2007	<i>Japonica type</i>	Mid-late maturing type	5	7	8	6.7±1.5
213	Hwanggeumnodeul	2007	<i>Japonica type</i>	Mid-late maturing type	4	3	6	4.3±1.5
214	Baegseolchal	2007	<i>Japonica type</i>	Mid-late maturing type	6	3	9	6.0±3.0
215	Cheongcheongjinmi	2008	<i>Japonica type</i>	Mid-late maturing type	6	3	6	5.0±1.7
216	Jinbaek	2008	<i>Japonica type</i>	Mid-late maturing type	9	7	9	8.3±1.2
217	Dacheong	2008	<i>Japonica type</i>	Mid-late maturing type	4	3	6	4.3±1.5
218	Jinsumi	2008	<i>Japonica type</i>	Mid-late maturing type	4	5	8	5.7±2.1
219	Jungmo1006ho	2008	<i>Japonica type</i>	Mid-late maturing type	7	7	9	7.7±1.2
220	Deuraechan	2008	<i>Japonica type</i>	Mid-late maturing type	5	3	7	5.0±2.0

Supplementary Table 1. Continued.

No.	Variety name	Year released	Subspecies	Maturity type	2018	2019	2020	Mean±S.D
221	Haiami	2008	<i>Japonica type</i>	Mid-late maturing type	9	7	8	8.0±1.0
222	Baekogchal	2008	<i>Japonica type</i>	Mid-late maturing type	4	3	7	4.7±2.1
223	Danmi	2008	<i>Japonica type</i>	Mid-late maturing type	9	9	7	8.3±1.2
224	Cheonghaejinmi	2009	<i>Japonica type</i>	Mid-late maturing type	7	5	7	6.3±1.2
225	Honong	2009	<i>Japonica type</i>	Mid-late maturing type	4	1	5	3.3±2.1
226	Seomyeong	2009	<i>Japonica type</i>	Mid-late maturing type	5	3	6	4.7±1.5
227	Younghojinmi	2009	<i>Japonica type</i>	Mid-late maturing type	9	9	4	7.3±2.9
228	Jinbo	2009	<i>Japonica type</i>	Mid-late maturing type	9	7	9	8.3±1.2
229	Goami4ho	2009	<i>Japonica type</i>	Mid-late maturing type	9	7	9	8.3±1.2
230	Boramchan	2009	<i>Japonica type</i>	Mid-late maturing type	7	3	6	5.3±2.1
231	Anmi	2010	<i>Japonica type</i>	Mid-late maturing type	5	2	8	5.0±3.0
232	Mipum	2010	<i>Japonica type</i>	Mid-late maturing type	9	7	9	8.3±1.2
233	Chinnong	2010	<i>Japonica type</i>	Mid-late maturing type	4	3	4	3.7±0.6
234	Geongganghongmi	2010	<i>Japonica type</i>	Mid-late maturing type	4	3	6	4.3±1.5
235	Sodami	2011	<i>Japonica type</i>	Mid-late maturing type	9	7	9	8.3±1.2
236	Sukwang	2011	<i>Japonica type</i>	Mid-late maturing type	5	3	8	5.3±2.5
237	Huimangchan	2011	<i>Japonica type</i>	Mid-late maturing type	6	3	8	5.7±2.5
238	Geonyangmi	2011	<i>Japonica type</i>	Mid-late maturing type	9	9	6	8.0±1.7
239	Saeilmi	2011	<i>Japonica type</i>	Mid-late maturing type	4	1	3	2.7±1.5
240	Saegoami	2011	<i>Japonica type</i>	Mid-late maturing type	5	1	4	3.3±2.1
241	Cheongun	2012	<i>Japonica type</i>	Mid-late maturing type	4	3	9	5.3±3.2
242	Hyeonpum	2012	<i>Japonica type</i>	Mid-late maturing type	9	9	8	8.7±0.6
243	Chindeul	2012	<i>Japonica type</i>	Mid-late maturing type	4	5	8	5.7±2.1
244	Heugsujeong	2012	<i>Japonica type</i>	Mid-late maturing type	4	3	8	5.0±2.6
245	Misomi	2013	<i>Japonica type</i>	Mid-late maturing type	4	3	9	5.3±3.2
246	Anbaek	2014	<i>Japonica type</i>	Mid-late maturing type	7	7	9	7.7±1.2
247	Manbaek	2014	<i>Japonica type</i>	Mid-late maturing type	7	7	9	7.7±1.2
248	Saeshin	2014	<i>Japonica type</i>	Mid-late maturing type	9	5	9	7.7±2.3
249	Cheonghyang heukmi	2015	<i>Japonica type</i>	Mid-late maturing type	7	9	9	8.3±1.2
250	Sinjinbaek	2016	<i>Japonica type</i>	Mid-late maturing type	7	3	3	4.3±2.3
251	Youngjin	2016	<i>Japonica type</i>	Mid-late maturing type	7	7	9	7.7±1.2
252	Saechilbo	2016	<i>Japonica type</i>	Mid-late maturing type	7	7	9	7.7±1.2
253	Miho	2016	<i>Japonica type</i>	Mid-late maturing type	5	5	7	5.7±1.2
254	Aromi	2016	<i>Japonica type</i>	Mid-late maturing type	4	3	3	3.3±0.6
255	Hangaru	2016	<i>Japonica type</i>	Mid-late maturing type	9	5	7	7.0±2.0
256	MY298BB	2016	<i>Japonica type</i>	Mid-late maturing type	6	3	7	5.3±2.1
257	MY299BK	2016	<i>Japonica type</i>	Mid-late maturing type	7	5	9	7.0±2.0
258	Yechan	2017	<i>Japonica type</i>	Mid-late maturing type	5	5	7	5.7±1.2
259	Saeilpum	2017	<i>Japonica type</i>	Mid-late maturing type	5	1	3	3.0±2.0
260	Keunpum	2017	<i>Japonica type</i>	Mid-late maturing type	9	5	8	7.3±2.1
261	Misiru	2017	<i>Japonica type</i>	Mid-late maturing type	9	7	9	8.3±1.2
262	Taebaekbyeo	1979	Tongil type	Early maturing type	1	1	4	2.0±1.7
263	Cheongcheongbyeo	1979	Tongil type	Medium maturing type	3	1	5	3.0±2.0
264	Samgangbyeo	1982	Tongil type	Medium maturing type	1	1	4	2.0±1.7

Supplementary Table 1. Continued.

No.	Variety name	Year released	Subspecies	Maturity type	2018	2019	2020	Mean±S.D
265	Jungwonbyeo	1984	Tongil type	Medium maturing type	1	1	4	2.0±1.7
266	Yongmunbyeo	1985	Tongil type	Medium maturing type	1	1	3	1.7±1.2
267	Dasanbyeo	1995	Tongil type	Medium maturing type	1	1	3	1.7±1.2
268	Namcheonbyeo	1995	Tongil type	Medium maturing type	1	1	6	2.7±2.9
269	Andabyeo	1998	Tongil type	Medium maturing type	1	1	4	2.0±1.7
270	Areum	1999	Tongil type	Medium maturing type	1	1	3	1.7±1.2
271	Hanareum	2002	Tongil type	Medium maturing type	1	1	3	1.7±1.2
272	DASANIHO	2006	Tongil type	Medium maturing type	1	1	3	1.7±1.2
273	Keunseom	2006	Tongil type	Medium maturing type	1	1	4	2.0±1.7
274	Hangangchal 1ho	2006	Tongil type	Medium maturing type	1	1	3	1.7±1.2
275	Dasan2ho	2009	Tongil type	Medium maturing type	1	1	3	1.7±1.2
276	Hanareum 2	2010	Tongil type	Medium maturing type	1	1	5	2.3±2.3
277	Palbangmi	2012	Tongil type	Medium maturing type	1	1	4	2.0±1.7
278	Mimyeon	2012	Tongil type	Medium maturing type	1	1	3	1.7±1.2
279	Saemimyeon	2014	Tongil type	Medium maturing type	1	1	3	1.7±1.2
280	Hanareumchal	2015	Tongil type	Medium maturing type	1	1	3	1.7±1.2
281	Shingil	2017	Tongil type	Medium maturing type	1	1	4	2.0±1.7
282	Hangangchalbyeo	1979	Tongil type	Mid-late maturing type	1	1	6	2.7±2.9
283	Nampungbyeo	1981	Tongil type	Mid-late maturing type	3	1	6	3.3±2.5
284	Jangseongbyeo	1985	Tongil type	Mid-late maturing type	1	1	5	2.3±2.3
285	Hwangmibyeo 1ho	1993	Tongil type	Mid-late maturing type	3	1	4	2.7±1.5
286	NOKYANG	2006	Tongil type	Mid-late maturing type	7	7	8	7.3±0.6
287	Segyejinmi	2009	Tongil type	Mid-late maturing type	1	1	3	1.7±1.2
288	Hanareum3ho	2015	Tongil type	Mid-late maturing type	1	1	5	2.3±2.3
289	Hanareum4ho	2016	Tongil type	Mid-late maturing type	1	1	4	2.0±1.7
290	Geumgang1ho	2017	Tongil type	Mid-late maturing type	1	1	3	1.7±1.2
291	Mogwoo	2009	Tongil type	Mid-late maturing type	3	1	7	3.7±3.1
292	Mogyang	2010	Tongil type	Mid-late maturing type	7	1	7	5.0±3.5
293	Nokwoo	2014	Tongil type	Mid-late maturing type	5	5	7	5.7±1.2
294	Yeongwoo	2015	Tongil type	Mid-late maturing type	3	1	7	3.7±3.1
295	Cheongwoo	2016	Tongil type	Mid-late maturing type	3	1	6	3.3±2.5
296	Miwoo	2017	Tongil type	Mid-late maturing type	1	1	5	2.3±2.3

Supplementary Table 2. Genotype of 296 rice varieties by 27 DNA markers of blast resistance genes.

No.	Variety name	Pit <sup>1</sup> Pit-ID003	Pit dDN	Pit ID010	Pib ID11	Pib Phkdm	Pib L3S145	Pib ID18	Pib F9	Pigm S29742	Pig40 9871.17E	Piz- M4-piz ID31	Piz- M4-piz Z587.6	Piz- M4-piz AP22	Piz- M4-piz R2123	Piz- M4-piz P13- ID008	Pia PisSTS	Pia ID01.2	Pia Phk-1	Pia RM224	Pik ID007	Pik ID018	Pik ID014	Pia YL155 YL87	Pia YL183 YL87	Piz0 ID009	Pia-2 ID016.3	Total No. of "++"
1	Sobegbyeo	-	+	-	+	+	-	+	-	-	+	-	-	+	-	-	+	+	+	+	-	N	+	-	-	-	10	
2	Odabyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	11	
3	Unbongbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	11	
4	Geumbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	9	
5	Jambyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	9	
6	Obongbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	14	
7	Namwonbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	8	
8	Jinbueobyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	9	
9	Jinbueo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	8	
10	Jinbueobyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	9	
11	Sinbongbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	11	
12	Saengbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	13	
13	Dunabyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	12	
14	Joryeongbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	10	
15	Ujangbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	10	
16	Sancheonbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	N	12	
17	Jungbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	13	
18	Keumbyeo 2ho	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	9	
19	Gurabyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	13	
20	Heokjinbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	11	
21	Saengchalbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	11	
22	Undeobyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	10	
23	Mananbyeo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	N	-	-	-	-	7	
24	Jeogjinju	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	12	
25	Taebong	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	12	
26	Jungseon	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	12	
27	Saengchal	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	15	
28	Manchu	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	10	
29	Manho	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	N	-	-	-	-	8	
30	Namil	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	N	-	-	-	-	8	
31	Joan	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	12	
32	Heugkwang	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	9	
33	Goun	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	8	
34	Unkwang	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	12	
35	Jestengheungchal	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	8	
36	Odde-illo	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	10	
37	Sinbong 1ho	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	13	
38	Manna	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	11	
39	Keamocho	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	14	
40	Hwangkeumbora	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	14	
41	Sandeuljinni	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	13	
42	Pyeongwon	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	13	
43	Umni	-	+	-	+	+	-	+	-	-	-	-	-	+	-	-	+	+	+	+	-	+	-	-	-	-	10	

Supplementary Table 2. Continued.

No.	Variety name	Pit- ID003	Pit tDN	P135 ID010	P1b ID11	P1b Phbkm	P1b L3S145	P1c ID18	P1c F9	P1gm S29742	P140 9871.17E	P1z- ID31	P1z- M4-p12	P1gm Z1587-6	AP22	R2123	P13- ID008	P1u PisSTS	P1a ID01.2	P1a P18h-1	P154 RM224	P1k ID007	P1k ID018	P1k ID014	P1a YL187	P1a YL183	P120 ID009	P1a-2 ID016.3	Total No. of "a"
44	HanDeul	-	+	-	+	+	-	+	-	-	+	-	-	+	+	-	-	+	+	+	+	+	+	+	N	-	+	13	
45	Jogwang	-	+	-	+	+	-	-	-	-	-	-	-	-	+	-	-	-	+	+	-	-	+	+	+	+	-	+	14
46	BoSeog	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	+	10
47	Jiami	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	13
48	Hansol	-	+	-	+	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	10
49	Joun	-	+	-	+	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	12
50	Gennyoung	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	13
51	Manjong	-	+	-	+	+	-	-	-	-	-	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	6
52	Wolbaek	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	12
53	Seolbaek	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	14
54	Jopyeong	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	12
55	Jeogjijuchal	-	+	-	+	+	-	-	-	-	+	-	-	N	+	-	-	-	-	-	-	-	+	N	+	+	-	+	10
56	Cheongbaekchal	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	10
57	Seolemi	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	13
58	Joembeukmi	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	12
59	Saodaek	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	N	+	+	-	+	11
60	Jinsoldchal	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	12
61	Jungmo 1024ho	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	N	+	+	-	+	11
62	Sanhomi	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	9
63	Hwawang	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	8
64	Nunkeumheungchal	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	10
65	Asemi	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	9
66	Ondami	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	9
67	Jungmo 1032	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	N	+	-	-	+	6
68	Jnok	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	12
69	Baegilmi	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	10
70	Asemi ho	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	11
71	Haedamsal	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	10
72	Nunkeumheungchal ho	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	10
73	Unitchal	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	10
74	Jungmo 1043	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	6
75	Jinhan	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	11
76	Jopum	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	+	+	-	+	14
77	Joil	N	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	10
78	Danpyeong	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	8
79	Unbaekchal	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	10
80	Jinkwang	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	9
81	Seongsan	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	12
82	Jonong	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	8
83	Shimpyeong	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	11
84	CW92-MR	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	N	+	-	-	+	11
85	Haedeul	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	9
86	Sinsseonhalbyeo	-	+	-	+	+	-	-	-	-	+	-	-	-	+	-	-	-	-	-	-	-	+	+	-	-	-	+	7



Supplementary Table 2. Continued.

No.	Variety name	Pit- ID003	Pit tDN	Pit ID010	Pib- ID11	Pib- Phbkm	Pib L3S145	Pib ID18	Pib F9	Pigm S29742	P40 9871.17E	Piz- ID31	Piz- M4-p2	Pigm Z587.6	AP22	R2123	P13- ID008	P13- ID008	Pia PisSTS	Pia ID01.2	Pia- Pibh-1	P154 RM224	Pik- ID007	Pik- ID018	Pik- ID014	Pia YL187	Pia YL183	P20 ID009	Pia-2- ID016.3	Total No. of "++"
130	HONGJINU	-	+	-	+	+	+	+	+	+	+	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	-	10		
131	Nunbora	-	+	-	+	+	-	-	-	+	-	-	-	-	+	+	-	-	-	-	-	-	N	+	-	-	-	10		
132	Cheongun	-	+	-	+	+	+	+	+	-	-	-	-	-	+	+	-	-	-	-	-	-	N	+	-	-	-	9		
133	Borami	-	+	-	+	+	-	-	-	+	-	-	-	-	+	+	-	-	-	-	-	-	N	+	-	-	-	10		
134	Gaam3ho	-	+	-	+	+	-	-	-	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	10		
135	Heugseol	-	+	-	+	+	-	-	-	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	10		
136	Haeretami	-	+	-	+	+	+	+	+	-	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	9		
137	Bosonghaengchal	-	+	-	+	+	-	-	-	+	-	-	-	-	+	+	-	-	-	-	-	N	+	N	-	-	-	8		
138	Migwang	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	N	+	+	+	+	12		
139	Cheongnam	-	+	-	+	+	-	-	-	+	-	-	-	-	+	+	-	-	-	-	-	-	N	+	-	-	-	7		
140	Suryeojimmi	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	N	+	-	-	-	9		
141	Gangchan	-	+	-	+	+	-	-	-	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	7		
142	Stam	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	10		
143	Shinbaeg	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	N	+	+	-	-	-	9		
144	Dongbo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	N	+	-	-	-	9		
145	Jungsaenggeold	-	+	-	+	+	-	-	-	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	7		
146	Seonhyangheukami	-	+	-	+	+	+	N	+	+	+	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	13		
147	Daeho	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	9		
148	Geonyang2ho	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	7		
149	Dabo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	9		
150	Dodamsal	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	6		
151	Bodami	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	10		
152	Shinbo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	8		
153	Jungmo 034	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	9		
154	Haepum	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	10		
155	Seonpum	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	9		
156	Youngbo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	9		
157	Sankwang1ho	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	9		
158	Cheongpum	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	11		
159	Sangbo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	7		
160	Hengjimi	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	N	+	-	-	-	10		
161	Borndhal	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	7		
162	Jeogjin2ho	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	10		
163	Dongjinbyeo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	11		
164	Daecheongbyeo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	9		
165	Tanjinbyeo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	9		
166	Kyebwabyeo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	12		
167	Ipunbyeo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	N	+	+	-	-	-	11		
168	Mangambyeo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	9		
169	Hwanambyeo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	8		
170	Daeambyeo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	8		
171	Yanggyeoyo	-	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	N	+	+	-	-	-	11		
172	Hwasinbyeo	N	+	-	+	+	+	+	+	+	-	-	-	-	+	+	-	-	-	-	-	-	+	+	-	-	-	9		





Supplementary Table 2. Continued.

No.	Variety name	Pi <sup>t</sup> Pi- ID003	Pi <sup>t</sup> tDN	Pi <sup>t</sup> ID010	Pib Pib- ID11	Pib Pib- ID18	Pib L3S145	Pib Pib- ID18	Pi9 F9	Pigm S29742	Pi40 9871.17E	Piz- ID31	Piz- M4-p2	Pigm Z587.6	AP22	R2123	Pi13- ID008	Pis- PisSTS	Pia ID01.2	Pi54 Pihh-1	Pi1 RM224	Pik Pik- ID007	Pik Pik- ID018	Pik Pik- ID014	Pia YL155 YL87	Pia YL183 YL87	P20 Pia-2- ID009	Pia-2 Pia-2- ID016.3	Total No. of "++"
259	Sueilpum	-	+	-	+	+	+	+	+	+	-	-	-	+	+	-	-	+	-	-	-	+	+	+	+	-	+	13	
260	Keunpum	-	+	-	+	+	+	+	+	+	-	-	-	+	+	-	-	+	-	-	+	+	+	-	-	-	-	12	
261	Misiru	-	+	-	+	+	+	+	+	+	-	-	-	+	+	-	-	+	-	-	+	+	+	-	-	-	-	10	
262	Taebaekbyeo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	12	
263	Cheongcheongbyeo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	N	13	
264	Sangangbyeo	-	+	-	+	+	+	+	+	N	+	+	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	13	
265	Jungwonbyeo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	N	N	+	+	N	-	12	
266	Yangmunbyeo	-	+	-	+	+	+	+	+	+	+	+	+	N	+	-	-	+	-	-	-	+	+	-	-	+	-	13	
267	Disanbyeo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	12	
268	Nancheonbyeo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	9	
269	Andbyeo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	N	14	
270	Aeum	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	N	+	-	-	-	-	9	
271	Hanareum	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	12	
272	DASANIHO	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	12	
273	Keuseom	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	12	
274	Hangangchal 1ho	-	+	-	+	+	+	+	+	N	+	+	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	12	
275	Dasan2ho	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	13	
276	Hanareum 2	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	12	
277	Pabaengi	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	13	
278	Minyeon	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	12	
279	Seuminyeon	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	12	
280	Hanareumchal	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	11	
281	Shingil	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	11	
282	Hangangchalbyeo	-	+	-	+	+	+	+	+	N	+	+	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	12	
283	Nampungbyeo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	10	
284	Jangseongbyeo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	+	+	-	-	+	-	-	14	
285	Hwangnibyeyo 1ho	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	N	+	-	11	
286	NOKYANG	-	+	-	+	+	+	+	+	+	+	-	-	+	+	-	-	+	-	-	N	+	+	-	-	-	-	7	
287	Segyejinni	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	11	
288	Hanareum3ho	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	11	
289	Hanareum4ho	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	N	+	-	12	
290	Ganggang1ho	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	12	
291	Mogwoo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	9	
292	Mogyang	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	6	
293	Nokwoo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	N	+	+	-	-	+	-	6	
294	Yeongwoo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	9	
295	Cheongwoo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	13	
296	Miwoo	-	+	-	+	+	+	+	+	+	N	-	-	+	+	-	-	+	-	-	-	+	+	-	-	+	-	10	

\*Genotype '+-' represents the resistant allele type, and '-' represents genotypes that differ from genotype '++', N indicates the absence of an amplification product.