

Additional file 1

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Title: *VRNI* genes variability in tetraploid wheat species with a spring growth habit.

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Table S1. List of tetraploid wheat species used in the study and their growth habit. Species names are given according to Dorofeev et al. [1] and Goncharov [2].

№	Species and cultivar	Accession/ specimen voucher	Sample location	Growth habit
Section <i>Dicoccoides</i> Flaksb.				
1.	<i>Triticum aethiopicum</i> Jakubz.	K-18999	Ethiopia	s
2.	<i>T. aethiopicum</i> Jakubz.	K-19301	Ethiopia	s
3.	<i>T. aethiopicum</i> Jakubz.	K-19398	Ethiopia	s
4.	<i>T. aethiopicum</i> Jakubz.	K-19553	Ethiopia	s
5.	<i>T. aethiopicum</i> Jakubz. cv. Gukur-sindi	K-19253	Ethiopia	s
6.	<i>T. aethiopicum</i> Jakubz.	K-19650	Eritrea	s
7.	<i>T. aethiopicum</i> Jakubz.	K-19059	Ethiopia	s
8.	<i>T. aethiopicum</i> Jakubz.	K-43766	Ethiopia	s
9.	<i>T. aethiopicum</i> Jakubz.	St56	Ethiopia	s
10.	<i>T. carthlicum</i> Nevski	K-7106	Georgia	s
11.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 352324	Lebanon	s
12.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 352328	Germany	s
13.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 428105	Israel	s
14.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46225	Turkey	s
15.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46223	Turkey	s
16.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 1	Turkey	w
17.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 2	Turkey	w
18.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 3	Turkey	w
19.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 4	Turkey	w
20.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 5	Turkey	w
21.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 6	Turkey	w
22.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 7	Turkey	w
23.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 8	Turkey	w
24.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 9	Turkey	w
25.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 10	Turkey	w
26.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 11	Turkey	w
27.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 12	Turkey	w
28.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 13	Turkey	w
29.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 14	Turkey	w

Table S1, continued.

№	Species and cultivar	Accession/ specimen voucher	Sample location	Growth habit
Section <i>Dicoccoides</i> Flaksb.				
80.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 123	Turkey	w
81.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 124	Turkey	w
82.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 125	Turkey	w
83.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 127	Turkey	w
84.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 129	Turkey	w
85.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 161	Turkey	w
86.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 176	Turkey	w
87.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 185	Turkey	w
88.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 187	Turkey	w
89.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 188	Turkey	w
90.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 192	Turkey	w
91.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № k-2	Turkey	w
92.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 661	Turkey	w
93.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 1-4	Turkey	w
94.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 6-4-08	Turkey	w
95.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 233	Turkey	w
96.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 244	Turkey	w
97.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 410	Turkey	w
98.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 414	Turkey	w
99.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 422	Turkey	w
100.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 515	Turkey	w
101.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 520	Turkey	w
102.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 522	Turkey	w
103.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 525	Turkey	w
104.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 527	Turkey	w
105.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 537	Turkey	w
106.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 13-1-88	Turkey	w
107.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46148	Turkey	w
108.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116181	Turkey	w
109.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46191	Turkey	w
110.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46149	Turkey	w
111.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46165	Turkey	w
112.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46167	Turkey	w
113.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46171	Turkey	w
114.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46173	Turkey	w
115.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46191	Turkey	w
116.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46175	Turkey	w
117.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46177	Turkey	w
118.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46180	Turkey	w
119.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46181	Turkey	w
120.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46182	Turkey	w
121.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46183	Turkey	w
122.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46206	Turkey	w
123.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46207	Turkey	w
124.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46210	Turkey	w
125.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46212	Turkey	w
126.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46216	Turkey	w
127.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46218	Turkey	w
128.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46219	Turkey	w
129.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46226	Turkey	w
130.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46233	Turkey	w

Table S1, continued.

№	Species and cultivar	Accession/ specimen voucher	Sample location	Growth habit
Section <i>Dicoccoides</i> Flaksb.				
131.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG46236	Turkey	w
132.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG46239	Turkey	w
133.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46250	Turkey	w
134.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46244	Turkey	w
135.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46252	Turkey	w
136.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46253	Turkey	w
137.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116171	Turkey	w
138.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116172	Turkey	w
139.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116173	Turkey	w
140.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116174	Turkey	w
141.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116175	Turkey	w
142.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116180	Turkey	w
143.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116183	Turkey	w
144.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116184	Turkey	w
145.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116185	Turkey	w
146.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116188	Turkey	w
147.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116178	Turkey	w
148.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 116179	Turkey	w
149.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 45964	Jordan	w
150.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46486	Jordan	w
151.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46357	Jordan	w
152.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46493	Jordan	w
153.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 115811	Jordan	w
154.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 470736	Turkey	w
155.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 46183	Turkey	w
156.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 554584	Turkey	w
157.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 560873	Turkey	w
158.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 560877	Turkey	w
159.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 654334	Turkey	w
160.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 654336	Turkey	w
161.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 656865	Turkey	w
162.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 656868	Turkey	w
163.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 656870	Turkey	w
164.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 656873	Turkey	w
165.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 1	Israel	w
166.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 2	Israel	w
167.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 3	Israel	w
168.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 4	Israel	w
169.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 5	Israel	w
170.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 6	Israel	w
171.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 7	Israel	w
172.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 8	Israel	w
173.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 9	Israel	w
174.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 10	Israel	w
175.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 11	Israel	w
176.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 12	Israel	w
177.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 13	Israel	w
178.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 14	Israel	w
179.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG expedition № 15	Israel	w
180.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 467027	Israel	s
181.	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 467014	Israel	s

Table S1, continued.

№	Species and cultivar	Accession/ specimen voucher	Sample location	Growth habit
Section <i>Dicoccoides</i> Flaksb.				
182	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	PI 467019	Israel	s
183	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	K-62328	Israel	s
184	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	K-26118	Israel	s
185	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG №13	Israel	s
186	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG №15	Israel	s
187	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG №18	Israel	s
188	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG №19	Israel	s
189	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG №2	Israel	s
190	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG №23	Israel	s
191	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG №24	Israel	s
192	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG №27	Israel	s
193	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	ICG №125	Israel	s
194	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	K-15900	Israel	s
195	<i>T. dicoccoides</i> (Körn. ex Aschers. et Graebn.) Schweinf.	IG 346783	Azerbaijan	s
196	<i>T. dicoccum</i> (Schrank) Schuebl. cv. Krausei	K-20749	Germany	s
197	<i>T. dicoccum</i> (Schrank) Schuebl. cv. Dichter Rotlicher	K-1730	Germany	s
198	<i>T. dicoccum</i> (Schrank) Schuebl.	K-7500	Germany	s
199	<i>T. dicoccum</i> cv. Bastard Emmer verastelter	K-40306	Germany	s
200	<i>T. dicoccum</i> (Schrank) Schuebl i: BS1E	-	Russia	s
201	<i>T. durum</i> Desf. cv. Langdon	-	USA	s
202	<i>T. durum</i> Desf.	K-17784	Cyprus	s
203	<i>T. durum</i> Desf.	K-17787	Cyprus	s
204	<i>T. durum</i> Desf. cv. Gaza	K-52989	Israel	s
205	<i>T. durum</i> Desf.	K-13768	Armenia	s
206	<i>T. durum</i> Desf. cv. Nursit	K-18118	Israel	s
207	<i>T. durum</i> Desf.	IG 85879	Jordania	s
208	<i>T. ispahanicum</i> Heslot	KU 145	Iran	w
209	<i>T. ispahanicum</i> Heslot	K-51762	Iran	w
210	<i>T. ispahanicum</i> Heslot	K-43064	Iran	w
211	<i>T. karamyshevii</i> Nevski	K-28162	Georgia	w
212	<i>T. karamyshevii</i> Nevski	K-28205	Georgia	w
213	<i>T. karamyshevii</i> Nevski	K-38549	Georgia	w
214	<i>T. karamyshevii</i> Nevski	KU 190-2	Georgia	w
215	<i>T. polonicum</i> L.	K-17893	Israel	s
216	<i>T. polonicum</i> L.	K-19597	Ethiopia	s
217	<i>T. polonicum</i> L.	K-43335	China	s
218	<i>T. turanicum</i>	K-31693	Tajikistan	s
219	<i>T. turgidum</i> L.	K-3047	Uzbekistan	s
220	<i>T. turgidum</i> L.	K-13489	Azerbaijan	s
221	<i>T. turgidum</i> L. cv. Zafrani	K-11597	Afghanistan	s
222	<i>T. turgidum</i> L. cv. Maiorka	K-16156	Algeria	s
223	<i>T. turgidum</i> L. cv. Blancal	K-20416	Spain	s
Section <i>Timopheevii</i> A.Filet. et Dorof.				
224	<i>T. araraticum</i> Jakubz.	K-58667	Armenia	s
225	<i>T. araraticum</i> Jakubz.	K-30234	Azerbaijan	s
226	<i>T. timopheevii</i> (Zhuk.) Zhuk. Zanduri population	K-38555	Georgia	s
227	<i>T. timopheevii</i> (Zhuk.) Zhuk.	K-29540	Georgia	s
228	<i>T. timopheevii</i> (Zhuk.) Zhuk.	KU107-1	Georgia	s

Table S2. Set of primers used in the present study.

Primers name	Primers sequence	Target sequence	Reference
VRN1AF	5'-GAAAGGAAAAATTCTGCTCG-3'	<i>VRN-A1</i> promoter	[3]
VRN1-INT1R	5'-GCAGGAAATCGAAATCGAAG-3'		
Intr1/C/F	5'-GCACTCCTAACCCACTAACC-3'	<i>VRN-A1</i> intron 1	[4]
Intr1/AB/R	5'-TCATCCATCATCAAGGCAAA-3'		
Ex1/C/F	5'-GTTCTCCACCGAGTCATGGT-3'	<i>VRN-A1</i> intron 1 with	[4]
Intr1/A/R3	5'-AAGTAAGACAACACGAATGTGAGA-3'	Langdon deletion	
Intr1/A/F2	5'-AGCCTCCACGGTTTGAAAGTAA-3'	<i>VRN-A1</i> intron 1 with	[4]
Intr1/A/R3	5'-AAGTAAGACAACACGAATGTGAGA-3'	IL369 deletion	
VRN1BF	5'-CAGTACCCCTGCTACCAGTG-3'	<i>VRN-B1</i> promoter,	[3]
VRN1-INT1R	5'-GCAGGAAATCGAAATCGAAG-3'	<i>VRN-G1</i> promoter	
Intr1/B/F	5'-CAAGTGGAACGGTTAGGACA-3'	<i>VRN-B1</i> and <i>VRN-G1</i>	[4]
Intr1/B/R4	5'-CAAATGAAAAGGAATGAGAGCA-3'	intron 1	
Intr1/B/F	5'-CAAGTGGAACGGTTAGGACA-3'	<i>VRN-B1</i> intron 1 with NIL	[4]
Intr1/B/R3	5'-TCATGCCAAAAATTGAAGATGA-3'	Triple Dirk B deletion	

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