

Supplementary Table 1. Disease reaction of 247 stem rust pre-epidemic bread wheat genotypes (156) and Durum genotypes (91) to host-selective toxin Ptr ToxA, race 1, and stem rust

No.	Accession #	Wheat type	Country	Year	Ptr ToxA	Lesion type	Race1	Stem rust
1	CItr3986	<i>Triticum aestivum</i>	Algeria	1912	+	1.6	MR	S
2	CItr6868	<i>Triticum aestivum</i>	Argentina	1923	-	3.1	MS	S
3	CItr3968	<i>Triticum aestivum</i>	Argentina	1923	+	3.9	MS	S
4	CItr5100	<i>Triticum aestivum</i>	Argentina	1926	+	3.3	MS	S
5	CItr8397	<i>Triticum aestivum</i>	Argentina	1926	-	1.7	MR	S
6	CItr2824	<i>Triticum aestivum</i>	Australia	1916	+	4	S	S
7	CItr5117	<i>Triticum aestivum</i>	Australia	1904	+	3.6	MS	S
8	CItr5125	<i>Triticum aestivum</i>	Australia	1897	+	4.1	S	S
9	CItr6620	<i>Triticum aestivum</i>	Australia	1921	+	3.9	MS	S
10	CItr4608	<i>Triticum aestivum</i>	Australia	1915	+	4.5	S	S
11	CItr2826	<i>Triticum aestivum</i>	Australia	1905	-	4	S	S
12	CItr8425	<i>Triticum aestivum</i>	Australia	1926	+	4.1	S	S
13	CItr8426	<i>Triticum aestivum</i>	Australia	1926	+	4.1	S	S
14	CItr8168	<i>Triticum aestivum</i>	Chile	1924	-	3.8	MS	S
15	CItr8111	<i>Triticum aestivum</i>	China	1923	-	3.7	MS	S
16	CItr8116	<i>Triticum aestivum</i>	China	1924	+	3.8	MS	S
17	CItr8117	<i>Triticum aestivum</i>	China	1924	+	3.6	MS	S
18	CItr5085	<i>Triticum aestivum</i>	China	1916	-	1.8	MR	S
19	CItr5079	<i>Triticum aestivum</i>	China	1924	-	3.5	MS	S
20	CItr8328	<i>Triticum aestivum</i>	China	1925	-	2.2	MR	S
21	CItr8332	<i>Triticum aestivum</i>	China	1925	+	4.3	MS	S
22	CItr8333	<i>Triticum aestivum</i>	China	1916	-	3.5	MS	S
23	CItr8128	<i>Triticum aestivum</i>	Ethiopia	1924	-	1.9	MR	S
24	CItr7952	<i>Triticum aestivum</i>	Ethiopia	1924	+	1.7	MR	R
25	CItr7967	<i>Triticum aestivum</i>	Ethiopia	1924	-	1.2	R	S
26	CItr8074	<i>Triticum aestivum</i>	Ethiopia	1924	+	1.6	MR	S
27	CItr8082	<i>Triticum aestivum</i>	Ethiopia	1924	+	3.5	MS	S
28	CItr7808	<i>Triticum aestivum</i>	Ethiopia	1924	-	4.1	S	S
29	CItr7858	<i>Triticum aestivum</i>	Ethiopia	1924	-	3.9	S	S
30	CItr7877	<i>Triticum aestivum</i>	Ethiopia	1924	+	4	S	S
31	CItr5018	<i>Triticum aestivum</i>	Former Soviet Union	1916	-	3.6	MS	S
32	CItr5878	<i>Triticum aestivum</i>	Former Soviet Union	1917	-	3.7	MS	S
33	CItr2346	<i>Triticum aestivum</i>	France	1903	-	2	MR	S
34	CItr2440	<i>Triticum aestivum</i>	Germany	1904	-	1.9	MR	S
35	CItr5111	<i>Triticum aestivum</i>	Greece	1916	-	2	MR	S
36	CItr4203	<i>Triticum aestivum</i>	Honduras	1914	-	3.9	S	S
37	CItr2034	<i>Triticum aestivum</i>	Hungary	1900	-	1	R	S
38	CItr4302	<i>Triticum aestivum</i>	Iran	1914	+	4.3	S	S
39	CItr4305	<i>Triticum aestivum</i>	Iran	1914	-	3.8	MS	S
40	CItr4309	<i>Triticum aestivum</i>	Iran	1914	-	3.8	MS	S
41	CItr4312	<i>Triticum aestivum</i>	Iran	1914	+	4	S	S
42	CItr8428	<i>Triticum aestivum</i>	Japan	1926	-	3.5	MS	S
43	CItr8433	<i>Triticum aestivum</i>	Japan	1926	-	4	S	S
44	CItr6833	<i>Triticum aestivum</i>	Kenya	1922	-	1.5	R	S
45	CItr2796	<i>Triticum aestivum</i>	Mexico	1904	-	1	R	S
46	CItr5286	<i>Triticum aestivum</i>	Mexico	1926	-	1.7	MR	S
47	CItr5288	<i>Triticum aestivum</i>	Mexico	1922	-	3.8	MS	S
48	CItr8400	<i>Triticum aestivum</i>	Mexico	1926	-	4.1	S	S
49	CItr8401	<i>Triticum aestivum</i>	Mexico	1926	-	1.7	MR	S
50	CItr8402	<i>Triticum aestivum</i>	Mexico	1926	+	4.2	S	S
51	CItr8408	<i>Triticum aestivum</i>	Mexico	1926	-	2	MR	S
52	CItr8409	<i>Triticum aestivum</i>	Mexico	1926	-	3.8	MS	S
53	CItr8415	<i>Triticum aestivum</i>	Mexico	1926	-	4.3	S	S
54	CItr8417	<i>Triticum aestivum</i>	Mexico	1926	-	4	S	S
55	CItr8418	<i>Triticum aestivum</i>	Mexico	1926	-	1.3	R	S
56	CItr8429	<i>Triticum aestivum</i>	Mexico	1926	-	3.6	MS	S
57	CItr6877	<i>Triticum aestivum</i>	Morocco	1923	-	1.5	R	S
58	CItr7737	<i>Triticum aestivum</i>	Pakistan	1923	-	3.5	MS	S
59	CItr8161	<i>Triticum aestivum</i>	Peru	1924	-	1.7	MR	S
60	CItr4175	<i>Triticum aestivum</i>	Philippines	1914	-	4	S	S

61	CItr7715	<i>Triticum aestivum</i>	Russian Federation	1915	+	3.2	MS	S
62	CItr7717	<i>Triticum aestivum</i>	Russian Federation	1923	-	4	S	S
63	CItr7720	<i>Triticum aestivum</i>	Russian Federation	1923	+	1.8	MR	S
64	CItr7725	<i>Triticum aestivum</i>	Russian Federation	1923	+	2	MR	S
65	CItr7576	<i>Triticum aestivum</i>	Russian Federation	1923	+	1.7	MR	S
66	CItr7700	<i>Triticum aestivum</i>	Russian Federation	1923	-	1.9	MR	S
67	CItr7708	<i>Triticum aestivum</i>	Russian Federation	1923	-	1.9	MR	S
68	CItr5015	<i>Triticum aestivum</i>	Russian Federation	1923	-	1.7	MR	S
69	CItr3733	<i>Triticum aestivum</i>	Russian Federation	1916	-	2.5	MR	S
70	CItr3737	<i>Triticum aestivum</i>	Russian Federation	1913	-	3.8	S	S
71	CItr3756	<i>Triticum aestivum</i>	Russian Federation	1912	-	1.7	S	S
72	CItr4320	<i>Triticum aestivum</i>	Russian Federation	1912	+	3.9	S	S
73	CItr4322	<i>Triticum aestivum</i>	Russian Federation	1915	+	3.8	MS	S
74	CItr4795	<i>Triticum aestivum</i>	Russian Federation	1916	-	2.4	MS	S
75	CItr4795	<i>Triticum aestivum</i>	South Africa	1924	-	1.7	MR	S
76	CItr3008	<i>Triticum aestivum</i>	South Africa	1906	+	4.4	S	S
77	CItr3285	<i>Triticum aestivum</i>	Sweden	1912	-	1.2	R	S
78	CItr6009	<i>Triticum aestivum</i>	Sweden	1917	+	2	MR	S
79	CItr6873	<i>Triticum aestivum</i>	Tunisia	1923	-	4	S	S
80	CItr3812	<i>Triticum aestivum</i>	Tunisia	1912	-	2.2	MR	S
81	CItr3814	<i>Triticum aestivum</i>	Tunisia	1913	-	1.7	MR	S
82	CItr6791	<i>Triticum aestivum</i>	United Kingdom	1922	-	2.1	MR	S
83	CItr6886	<i>Triticum aestivum</i>	USA	1923	-	3.5	MS	S
84	CItr6887	<i>Triticum aestivum</i>	USA	1923	+	3.7	MS	S
85	CItr4966	<i>Triticum aestivum</i>	USA	1915	-	1.7	MR	S
86	CItr5149	<i>Triticum aestivum</i>	USA	1916	-	1.7	MR	S
87	CItr4475	<i>Triticum aestivum</i>	USA	1915	-	1.3	R	S
88	CItr8215	<i>Triticum aestivum</i>	USA	1926	-	2.2	MR	S
89	CItr8216	<i>Triticum aestivum</i>	USA	1926	-	4	S	S
90	CItr8873	<i>Triticum aestivum</i>	USA	1928	+	3.3	MS	S
91	CItr11789	<i>Triticum aestivum</i>	USA	1936	+	3.8	S	S
92	CItr3690	<i>Triticum aestivum</i>	USA	1913	-	1.5	R	S
93	CItr5296	<i>Triticum aestivum</i>	USA	1916	+	1.7	MR	S
94	CItr12039	<i>Triticum aestivum</i>	USA	1940	-	1.5	R	S
95	CItr11684	<i>Triticum aestivum</i>	USA	na	+	3.9	S	S
96	CItr11685	<i>Triticum aestivum</i>	USA	na	-	2.1	MR	S
97	CItr12038	<i>Triticum aestivum</i>	USA	1940	+	4	S	S
98	CItr6900	<i>Triticum aestivum</i>	USA	1923	+	3.5	MS	S
99	CItr8004	<i>Triticum aestivum</i>	USA	1925	-	4	S	S
100	CItr6049	<i>Triticum aestivum</i>	USA	1918	-	2.8	MR	S
101	CItr8385	<i>Triticum aestivum</i>	USA	1927	-	3.5	MS	S
102	CItr2874	<i>Triticum aestivum</i>	USA	1905	-	3.8	MS	S
103	CItr8199	<i>Triticum aestivum</i>	USA	1926	-	4	S	S
104	CItr8379	<i>Triticum aestivum</i>	USA	na	-	2.7	MR	S
105	CItr2874	<i>Triticum aestivum</i>	USA	1927	-	1.7	MR	S
106	CItr8384	<i>Triticum aestivum</i>	USA	1927	+	4	S	S
107	CItr11642	<i>Triticum aestivum</i>	USA	1934	+	3.9	S	S
108	CItr11683	<i>Triticum aestivum</i>	USA	1935	+	3.8	MS	S
109	CItr11713	<i>Triticum aestivum</i>	USA	1935	+	1.9	MR	S
110	CItr11714	<i>Triticum aestivum</i>	USA	1935	+	3.5	MS	S
111	CItr11715	<i>Triticum aestivum</i>	USA	1935	-	2.3	MR	S
112	CItr11716	<i>Triticum aestivum</i>	USA	1935	+	2.2	MR	S
113	CItr11723	<i>Triticum aestivum</i>	USA	1935	+	4.3	S	S
114	CItr8879	<i>Triticum aestivum</i>	USA	1928	+	4	S	S
115	CItr8890	<i>Triticum aestivum</i>	USA	1929	+	4.1	S	S
116	CItr12056	<i>Triticum aestivum</i>	USA	1940	+	3.8	MS	S
117	CItr12057	<i>Triticum aestivum</i>	USA	1940	+	3.9	S	S
118	CItr12060	<i>Triticum aestivum</i>	USA	1940	-	2.3	MR	S
119	CItr12204	<i>Triticum aestivum</i>	USA	1941	+	2.8	MR	S
120	CItr11775	<i>Triticum aestivum</i>	USA	1935	+	4	S	S
121	CItr11779	<i>Triticum aestivum</i>	USA	1935	+	4.1	S	S

122	CItr11786	<i>Triticum aestivum</i>	USA	1936	+	4	S	S
123	CItr11787	<i>Triticum aestivum</i>	USA	1936	+	3.5	MS	R
124	CItr11788	<i>Triticum aestivum</i>	USA	1936	-	3.5	MS	S
125	CItr10014	<i>Triticum aestivum</i>	USA	1930	+	4	S	S
126	CItr11479	<i>Triticum aestivum</i>	USA	1932	+	1.7	MR	S
127	CItr11550	<i>Triticum aestivum</i>	USA	1932	+	3.9	S	S
128	CItr11639	<i>Triticum aestivum</i>	USA	1934	+	3.5	MS	S
129	CItr11640	<i>Triticum aestivum</i>	USA	1934	+	3.6	MS	S
130	CItr11641	<i>Triticum aestivum</i>	USA	1934	+	4	S	S
131	CItr12045	<i>Triticum aestivum</i>	USA	1940	+	2	MR	S
132	CItr12046	<i>Triticum aestivum</i>	USA	1940	+	3.5	MS	S
133	CItr12048	<i>Triticum aestivum</i>	USA	1940	+	4	S	S
134	CItr12049	<i>Triticum aestivum</i>	USA	1940	+	3.8	MS	S
135	CItr12050	<i>Triticum aestivum</i>	USA	1940	+	4	S	S
136	CItr12051	<i>Triticum aestivum</i>	USA	1940	+	3.8	MS	S
137	CItr12052	<i>Triticum aestivum</i>	USA	1940	+	4	S	S
138	CItr12053	<i>Triticum aestivum</i>	USA	1940	-	4.1	S	S
139	CItr12054	<i>Triticum aestivum</i>	USA	1940	+	3.5	S	S
140	CItr12055	<i>Triticum aestivum</i>	USA	1940	+	3.8	MS	S
141	CItr11798	<i>Triticum aestivum</i>	USA	1936	+	3.7	S	S
142	CItr11799	<i>Triticum aestivum</i>	USA	1936	+	3.8	MS	S
143	CItr11882	<i>Triticum aestivum</i>	USA	1937	+	1.8	MR	S
144	CItr11883	<i>Triticum aestivum</i>	USA	1937	+	3.7	MS	S
145	CItr11884	<i>Triticum aestivum</i>	USA	na	+	1.9	MR	S
146	CItr11885	<i>Triticum aestivum</i>	USA	1937	+	1.7	MR	S
147	CItr11894	<i>Triticum aestivum</i>	USA	1938	+	3.8	MS	S
148	CItr11895	<i>Triticum aestivum</i>	USA	1938	+	3.8	MS	S
149	CItr11899	<i>Triticum aestivum</i>	USA	1939	+	4	S	S
150	CItr11930	<i>Triticum aestivum</i>	USA	1938	+	4	S	S
151	CItr11931	<i>Triticum aestivum</i>	USA	1938	+	3.7	MS	S
152	CItr11934	<i>Triticum aestivum</i>	USA	1939	+	3.7	MS	S
153	CItr11948	<i>Triticum aestivum</i>	USA	1939	+	4	S	S
154	CItr11949	<i>Triticum aestivum</i>	USA	1939	+	4.1	S	S
155	CItr12005	<i>Triticum aestivum</i>	USA	1939	+	2	MR	S
156	CItr12037	<i>Triticum aestivum</i>	USA	1940	+	3.6	MS	S
157	CItr15055	<i>Triticum turgidum</i>	Afghanistan	1970	-	4	S	S
158	CItr15065	<i>Triticum turgidum</i>	Afghanistan	1970	-	4.2	S	S
159	CItr3847	<i>Triticum turgidum</i>	Algeria	1912	+	3.8	MS	S
160	CItr6834	<i>Triticum turgidum</i>	Algeria	1922	-	4.8	S	S
161	CItr1471	<i>Triticum turgidum</i>	Algeria	1900	-	4.3	S	S
162	CItr3848	<i>Triticum turgidum</i>	Algeria	1912	-	4	S	S
163	CItr3856	<i>Triticum turgidum</i>	Algeria	1912	-	4.1	S	S
164	PI174673	<i>Triticum turgidum</i>	Algeria	1949	+	3.8	MS	R
165	PI184538	<i>Triticum turgidum</i>	Algeria	1949	-	4	S	S
166	PI 7794	<i>Triticum turgidum</i>	Algeria	1900	+	2.8	MR	S
167	PI 7796	<i>Triticum turgidum</i>	Algeria	1901	+	2.3	MR	S
168	PI 25987	<i>Triticum turgidum</i>	Algeria	1909	+	4.1	S	S
169	PI57069	<i>Triticum turgidum</i>	Algeria	1923	+	3.4	MS	S
170	PI 174624	<i>Triticum turgidum</i>	Algeria	1949	-	1.3	R	S
171	PI94723	<i>Triticum turgidum</i>	Asia Minor	1931	+	3.4	MS	S
172	CItr5122	<i>Triticum turgidum</i>	Australia	1916	+	4.2	S	S
173	CItr13771	<i>Triticum turgidum</i>	Canada	1963	+	2	MR	R
174	CItr17757	<i>Triticum turgidum</i>	Canada	1978	-	4.1	S	S
175	CItr11246	<i>Triticum turgidum</i>	Croatia	1929	+	4.2	S	S
176	CItr7800	<i>Triticum turgidum</i>	Ethiopia	1924	+	4.3	S	R
177	CItr7780	<i>Triticum turgidum</i>	Ethiopia	1924	+	4.1	S	S
178	CItr7800	<i>Triticum turgidum</i>	Ethiopia	1924	+	4.3	S	R
179	CItr8635	<i>Triticum turgidum</i>	Ethiopia	1926	+	3.7	MS	S
180	CItr14712	<i>Triticum turgidum</i>	Ethiopia	1970	+	4	S	R
181	CItr3322	<i>Triticum turgidum</i>	Former Soviet Union	1912	-	3.6	MS	S

182	Citr15159	<i>Triticum turgidum</i>	France	1971	+	4.1	S	S
183	CI7157	<i>Triticum turgidum</i>	Georgia	1923	-	3.8	S	S
184	Citr2462	<i>Triticum turgidum</i>	Germany	1904	-	3.7	MS	S
185	Citr8373	<i>Triticum turgidum</i>	India	1927	+	4.2	S	S
186	Citr9032	<i>Triticum turgidum</i>	Iraq	1926	-	1.9	MR	S
187	Citr12452	<i>Triticum turgidum</i>	Italy	1946	-	4.2	S	S
188	Citr15111	<i>Triticum turgidum</i>	Italy	1971	-	4.3	S	S
189	Citr2800	<i>Triticum turgidum</i>	Mexico	1904	-	4.3	S	R
190	Citr6878	<i>Triticum turgidum</i>	Morocco	1923	-	4.3	S	S
191	Citr6879	<i>Triticum turgidum</i>	Morocco	1923	-	4.2	S	S
192	Citr8447	<i>Triticum turgidum</i>	Morocco	1926	-	2.1	MR	S
193	PI94702	<i>Triticum turgidum</i>	Palestine	1931	-	3.5	S	S
194	Citr8163	<i>Triticum turgidum</i>	Peru	1924	+	4.4	S	R
195	Citr8164	<i>Triticum turgidum</i>	Peru	1924	-	4.1	S	S
196	Citr2793	<i>Triticum turgidum</i>	Portugal	1904	-	1	R	S
197	Citr1515	<i>Triticum turgidum</i>	Russian Federation	1900	-	1.8	MR	S
198	Citr11220	<i>Triticum turgidum</i>	Serbia	1929	-	4.1	S	S
199	PI193391	<i>Triticum turgidum</i>	Syria	1951	+	4.6	S	S
200	PI 166984	<i>Triticum turgidum</i>	Syria	1948	-	2	MR	S
201	Citr3198	<i>Triticum turgidum</i>	Tunisia	1911	-	1	R	S
202	Citr3199	<i>Triticum turgidum</i>	Tunisia	1911	-	4	S	S
203	Citr3200	<i>Triticum turgidum</i>	Tunisia	1911	-	4	S	S
204	Citr3207	<i>Triticum turgidum</i>	Tunisia	1911	+	4.5	S	S
205	Citr3209	<i>Triticum turgidum</i>	Tunisia	1911	+	4.1	S	S
206	Citr3211	<i>Triticum turgidum</i>	Tunisia	1911	+	4	S	S
207	Citr3221	<i>Triticum turgidum</i>	Tunisia	1911	+	3.5	MS	S
208	Citr3233	<i>Triticum turgidum</i>	Tunisia	1911	-	4.3	S	S
209	Citr3242	<i>Triticum turgidum</i>	Tunisia	1911	-	3.8	MS	S
210	Citr3243	<i>Triticum turgidum</i>	Tunisia	1911	+	4.3	S	S
211	Citr3260	<i>Triticum turgidum</i>	Tunisia	1911	-	4	S	S
212	Citr3262	<i>Triticum turgidum</i>	Tunisia	1911	+	1.3	R	S
213	Citr3798	<i>Triticum turgidum</i>	Tunisia	1912	+	4.3	S	S
214	Citr3140	<i>Triticum turgidum</i>	Tunisia	1911	+	4.2	S	S
215	Citr3146	<i>Triticum turgidum</i>	Tunisia	1911	+	3.7	MS	S
216	Citr3156	<i>Triticum turgidum</i>	Tunisia	1911	-	3.8	MS	na
217	Citr3169	<i>Triticum turgidum</i>	Tunisia	1911	-	4	S	S
218	Citr3187	<i>Triticum turgidum</i>	Tunisia	1911	+	3.9	S	S
219	Citr3193	<i>Triticum turgidum</i>	Tunisia	1911	+	3.7	MS	S
220	Citr3195	<i>Triticum turgidum</i>	Tunisia	1911	-	1.7	MR	S
221	Citr3809	<i>Triticum turgidum</i>	Tunisia	1912	-	4.1	S	S
222	Citr15483	<i>Triticum turgidum</i>	Tunisia	1912	+	4.2	S	S
223	Citr15415	<i>Triticum turgidum</i>	Tunisia	1972	+	4.1	S	R
224	Citr15418	<i>Triticum turgidum</i>	Tunisia	1971	-	2.7	MR	S
225	Citr15479	<i>Triticum turgidum</i>	Tunisia	1972	+	2.6	MR	S
226	Citr3811	<i>Triticum turgidum</i>	Tunisia	1912	+	4.1	S	S
227	Citr15413	<i>Triticum turgidum</i>	Tunisia	1972	+	1.9	MR	S
228	Citr5414	<i>Triticum turgidum</i>	Tunisia	1972	-	4.2	S	S
229	PI 166941	<i>Triticum turgidum</i>	Turkey	1948	-	4.1	S	S
230	Citr13337	<i>Triticum turgidum</i>	USA	1957	+	3.7	MS	S
231	Citr13758	<i>Triticum turgidum</i>	USA	1962	+	1.8	MR	R
232	Citr14041	<i>Triticum turgidum</i>	USA	1964	+	3.7	MS	R
233	Citr14042	<i>Triticum turgidum</i>	USA	1964	+	3.5	S	R
234	Citr14043	<i>Triticum turgidum</i>	USA	1964	+	1.8	MR	R
235	Citr14044	<i>Triticum turgidum</i>	USA	1964	+	3.8	S	R
236	Citr14045	<i>Triticum turgidum</i>	USA	1964	+	4.1	S	R
237	Citr14046	<i>Triticum turgidum</i>	USA	1964	+	1.8	MR	R
238	Citr11776	<i>Triticum turgidum</i>	USA	1964	+	4.3	S	S
239	GSTR 10902	<i>Triticum turgidum</i>	USA	2008	+	3.9	S	S
240	GSTR 10906	<i>Triticum turgidum</i>	USA	2008	+	1.9	MR	S
241	GSTR 10915	<i>Triticum turgidum</i>	USA	2008	+	3.5	MS	R

242	GSTR 10916	<i>Triticum turgidum</i>	USA	2008	+	4	S	R
243	GSTR 10917	<i>Triticum turgidum</i>	USA	2008	+	3.3	MS	S
244	GSTR 10918	<i>Triticum turgidum</i>	USA	2008	-	4	S	S
245	GSTR 10919	<i>Triticum turgidum</i>	USA	2008	+	4	S	R
246	GSTR 10922	<i>Triticum turgidum</i>	USA	2008	-	1.7	MR	S
247	GSTR 10943	<i>Triticum turgidum</i>	USA	2008	+	4	S	R