

PPSN 2021-22

AVT No.	Entry	Stem rust		Leaf rust (S)		Leaf rust (N)		Yellow rust	
		ACI	HS	ACI	HS	ACI	HS	ACI	HS
1	VL2041*	3.1	10MS	6.4	20MS	17.9	60S	22.3	40S
2	VL2043	5.3	20MS	10.8	30MS	22.9	60S	3.4	20MR
3	VL2044	10.6	40S	3.6	10MS	8.6	20S	3.7	20MS
4	HD3402	8.9	20MS	6.0	20MS	7.9	20S	2.5	20MS
5	HPW481	3.8	40MR	6.4	30S	4.0	10S	11.0	60S
6	HPW487	4.3	10MS	10.0	30S	10.9	30S	5.8	20S
7	HPW488	7.9	20S	12.8	40S	22.3	60S	11.7	20S
8	HS692	6.3	20MS	8.9	40S	2.7	10S	5.5	40MS
9	HS693	9.6	20S	6.0	10S	8.4	20MS	3.9	40MS
10	HS694	18.6	40S	10.4	40MS	12.1	30S	1.9	10S
11	UP3114	20.0	40S	13.2	20S	18.7	40S	30.0	60S
12	VL3028	30.0	60S	12.4	30S	2.0	10MS	5.3	20MS
13	VL3029	3.5	20S	2.9	10S	6.9	20S	7.2	40S
14	VL3030	22.3	40S	9.2	30S	6.9	20S	15.5	60S
15	HPW483	0.4	5MR	13.2	40S	5.0	15S	20.4	60S
16	HPW484	36.6	80S	6.9	20MS	2.2	15S	5.9	20S
17	HPW485	13.1	40S	13.6	30S	11.3	20S	18.2	60S
18	HPW486	1.8	10MS	10.8	30S	20.3	40S	26.5	60S
19	HS688	9.6	40S	10.1	20MS	6.9	15S	17.2	60S
20	HS689	3.7	10MS	7.6	30S	21.3	70S	16.5	40S
20A	Infector	82.9	100S	84.0	100S	77.1	100S	77.5	100S
21	HS690	9.6	20S	8.8	20S	22.0	60S	4.9	20S
22	HS691	0.3	5MR	4.1	20S	1.9	10MS	6.9	40S
23	SKW362	33.1	60S	3.2	20MR	7.9	40S	27.5	60S
24	UP3113	9.5	20S	7.0	20MS	7.1	40S	18.7	60S
25	VL2047	26.0	40S	7.6	30S	6.6	20S	9.0	20S
26	VL2048	13.9	40S	14.4	40S	5.7	10S	28.5	80S
27	VL2049	7.8	20S	18.8	60S	27.1	70S	10.7	60S
28	VL2050	11.1	20S	13.2	30S	13.4	60S	18.9	80S
29	HS507(C)	2.3	15MS	10.8	20S	23.6	60S	11.2	20S
30	HS562(C)	21.1	40S	12.8	30S	22.2	60S	13.4	40S
31	HS490(C)	9.3	30S	13.2	40S	10.7	20S	20.2	60S
32	HPW349(C)	7.5	20S	7.6	20S	15.0	40S	9.3	40S
33	VL907(C)	0.4	5MR	21.2	80S	5.6	20S	16.0	60S
34	VL892(C)	3.8	10MS	5.7	20S	6.4	20S	40.1	80S
35	DBW377	3.8	20MS	6.8	20MS	2.2	10S	12.5	40S
36	PBW870	2.9	10MS	5.4	10S	4.3	20S	6.6	20MS
37	DBW372	11.3	40S	8.4	15MS	6.6	20MS	28.0	60S
38	DBW318	0.7	10MR	1.7	10MS	4.6	20S	9.8	60S
39	DBW327 (C)	7.4	20S	5.6	20S	16.6	40S	19.9	60S
40	DBW332(C)	12.6	20S	4.9	20MS	4.9	20S	21.5	60S
40A	Infector	80.0	100S	80.0	100S	74.3	100S	77.5	100S
41	DBW370	41.1	80S	15.3	60S	5.3	20S	29.3	70S
42	DBW371	34.3	80S	4.9	20MS	2.3	15S	20.7	60S
43	DBW373	22.9	40S	19.2	40S	11.5	40S	23.5	60S
44	PBW868	3.6	20MS	14.8	30S	14.1	30S	28.8	80S
45	PBW871	13.6	40S	6.8	30S	13.4	60S	22.9	60S
46	PBW872	9.5	20MS	6.8	30S	14.9	40S	22.3	40S
47	HD3090(C)	4.0	15MS	1.7	20MR	7.2	30S	60.5	90S
48	HI1633(C)	1.6	10MR	3.3	20MS	2.0	10S	58.5	90S
49	RAJ4083(C)	3.3	15MS	11.6	30S	13.9	40S	45.0	90S
50	DBW320#*	8.9	20MS	20.9	80S	21.5	60S	14.7	40S
51	MP1380#	1.3	5S	6.0	30S	8.3	40S	27.1	60S

AVT No.	Entry	Stem rust		Leaf rust (S)		Leaf rust (N)		Yellow rust	
		ACI	HS	ACI	HS	ACI	HS	ACI	HS
52	DBW407 ^B	12.1	20S	15.2	40S	19.3	70S	25.8	60S
53	DDW48(d)(C)	14.3	60S	2.0	15MR	3.1	20S	5.2	20MS
54	HI8826(d)*	6.6	40S	4.9	30MS	6.3	20S	12.6	40S
55	MACS4100(d)*	16.8	100S	12.1	60S*	1.7	10S	16.2	40S
56	MP1378	1.5	20MR	8.0	30S	2.5	15S	55.0	80S
57	MP3552	18.6	40MS	20.8	80S*	20.0	50S	23.9	60S
58	UAS3015	32.6	60S	11.2	20S	2.9	10S	24.6	60S
59	HI8839(d)	2.0	10MR	4.6	15S	4.5	15S	10.4	40S
60	HI8840(d)	5.8	40MS	4.1	20S	1.9	5S	9.3	20S
60A	Infector	80.0	100S	80.0	100S	75.7	100S	77.5	100S
61	MP1358(I)(C)	6.0	20MS	4.8	20S	8.0	20S	13.8	40S
62	NIAW3922	4.3	20MS	3.3	20MS	4.0	15S	30.3	60S
63	NIDW1149(d)(C)	9.7	20MS	3.3	20MS	1.6	5S	13.1	50S
64	UAS478(d)	16.9	80S	4.9	30MS	7.4	40S	6.2	40MS
65	DBW352#	1.3	10MR	3.6	20MS	6.5	40S	39.7	70S
66	GW513(I)(C)	1.5	10MR	3.3	20MS	5.2	30S	61.3	100S
67	GW547 ^B	1.9	10MR	1.3	15MR	3.2	10S	42.8	90S
68	HI1636(I)(C)	0.1	TMR	0.4	5MR	1.4	10S	65.5	100S
69	HI1650*	0.4	5MR	4.0	20S	5.3	40MS	55.7	80S
70	MACS6768*	3.0	20MR	12.1	60S*	6.0	20S	73.0	100S
71	MP3535*	28.7	40S	24.8	80S	29.3	80S	22.3	60S
72	NWS2194#	8.6	20MS	9.7	30S	3.6	15S	47.2	90S
73	HI1665	0.6	5MR	3.2	20MS	1.5	10S	64.0	100S
74	NIAW4028	1.2	10MS	3.2	20MS	7.3	20MS	60.3	100S
75	CG1036*	1.2	5MS	8.1	40S	4.3	30S	66.7	100S
76	CG1040	17.1	40MS	15.6	40S	15.4	60S	54.2	80S
77	DDW47(d)(C)	19.4	60S	2.5	20MR	3.6	20S	4.4	20S
78	DDW55(d) ^{Q*}	14.4	80S*	2.5	15MS	7.6	40S	24.3	70S
79	GW532	1.3	20MR	1.3	15MR	0.7	5S	36.9	80S
80	HD3401	14.1	80S	1.3	15MR	3.7	10S	22.5	60S
80A	Infector	80.0	100S	76.0	100S	77.1	100S	79.2	100S
81	HI1655 ^{Q*}	0.9	10MR	0.4	5MR	2.6	10S	39.5	90S
82	HI1666	0.4	5MR	0.8	10MR	4.3	20S	49.5	80S
83	HI8823(d)(I)(C)	1.0	10MR	0.9	10MR	1.0	5S	17.0	40S
84	HI8830(d)*	2.5	40MR	4.1	20S	3.5	15MS	10.8	40S
85	MACS6795	2.9	20MR	2.0	15MR	1.0	5S	64.8	100S
86	MP1377	14.3	40MS	4.4	10S	8.7	40S	42.5	80S
87	MP3288(C)	7.2	20S	4.8	20MS	10.3	20S	47.0	80S
88	UAS3019	9.1	20MS	9.2	30S	11.3	50S	25.2	60S
89	DBW316#*	36.0	80S	22.4	60S	34.3	70S	19.0	60S
90	HD3118(C)	21.7	40S	21.2	30S	28.9	90S	11.4	40S
91	HD3392	7.6	20MS	8.9	20S	20.7	50S	2.2	10S
92	HI1621(C)	15.0	60S	10.8	30S	22.5	70S	5.8	20S
93	PBW833*	35.7	60S	5.6	20MS	7.3	30S	5.9	20S
94	PBW835 ^{Q*}	9.4	20MS	3.3	20MS	2.7	10S	2.2	20S
95	HD3249(C)	13.7	60S	4.0	10S	3.5	10S	4.1	15MS
96	PBW826#*	6.3	20MS	6.9	30S	11.7	60S	11.5	40S
97	HD3388	14.4	30S	4.9	20MS	5.9	20S	14.9	40S
98	PBW852	5.4	20MS	8.2	30S	20.0	60S	20.3	50S
99	DBW252(C)	5.5	20S	6.8	30S	10.6	30S	21.0	40S
100	HD3171(C)	27.4	40S	32.0	80S	31.3	100S	29.8	60S
100A	Infector	80.0	100S	76.0	100S	74.3	100S	77.5	100S
101	HD3293(C)	14.6	30S	15.6	30S	28.6	100S	17.5	40S
102	DBW353	6.9	20MS	4.8	20S	6.9	20S	15.6	40S
103	JKW261(I)(C)	31.4	40S	7.2	20MS	3.6	20S	18.8	60S

AVT No.	Entry	Stem rust		Leaf rust (S)		Leaf rust (N)		Yellow rust	
		ACI	HS	ACI	HS	ACI	HS	ACI	HS
104	PBW771(C)	4.9	20MS	3.3	20MS	7.7	40S	12.0	40S
105	WH1124(C)	26.6	60S	16.8	60S	26.0	70S	21.0	60S
106	HD2967(C)	7.7	40S	16.8	80S*	5.8	20S	42.8	80S
107	HD3386	7.0	20S	2.0	15MR	9.7	40S	13.4	40S
108	DBW359	5.0	10S	8.1	20MS	10.1	40S	7.7	20S
109	DBW358	6.4	20MS	20.8	40S	16.4	40S	17.3	40S
110	NIAW3170(C)	3.5	20MS	9.6	40S	0.7	5S	40.5	80S
111	HD3043(C)	1.2	10MR	29.6	40S	24.3	100S	23.9	60S
112	HD3369*	6.0	40S	5.6	20MS	11.5	40S	5.9	20S
113	HD3397	2.6	10MS	5.6	20MS	6.1	40S	27.4	80S
114	HD3400	8.9	20S	6.4	20S	15.0	40S	8.7	40S
115	HD3418	18.0	40S	3.3	20MS	1.5	10MS	10.1	40S
116	HI1628(C)	5.2	15MS	4.0	20MR	3.1	10S	15.2	40S
117	HI1653*	11.4	20MS	3.3	20MS	2.9	20S	14.4	40S
118	HI1654*	2.6	20MS	4.8	30MS	0.2	TR	14.8	40S
119	HUW838(I)(C)	5.7	15MS	2.4	10MS	1.9	10S	20.8	40S
120	UP3090	23.3	40S	4.8	20MS	0.0	0	29.8	80S
120A	Infector	80.0	100S	84.0	100S	72.9	100S	77.5	100S
121	WH1402	5.4	40MR	4.9	20MS	2.9	10S	2.9	20MS
122	WH1403	4.2	10S	6.8	20MS	1.0	5S	4.1	40S
123	DBW365	20.1	60S	10.8	30S	9.3	30S	20.3	60S
124	DBW366	22.0	40S	4.8	20MS	4.0	10S	21.5	60S
125	DBW402	9.6	40S	2.9	10MS	1.2	5S	11.4	40S
126	HD3415	11.4	20S	2.5	10S	16.0	40S	29.9	60S
127	Kharchia65(C)	42.4	80S	64.0	80S	48.5	80S	75.0	100S
128	KRL19(C)	8.9	40S	36.0	60S	26.2	90S	66.3	100S
129	KRL2006	30.9	60S	4.8	20S	5.7	20S	36.3	80S
130	UAS310	30.0	60MS	4.8	20S	3.1	10S	20.3	40S
131	KRL2021	3.3	10S	4.1	20S	6.0	20S	27.8	60S
132	KRL210(C)	30.6	40S	11.6	30S	40.1	80S	20.8	60S
133	RAJ4565	9.7	20S	2.1	15MR	3.1	15S	37.1	90S
134	HD3438	0.5	5MR	3.2	20MS	3.8	20MS	66.7	100S
135	HD3439	9.3	40MS	4.8	20MS	0.7	5S	15.0	70S
136	CG1029(C)	2.4	20MR	3.2	20MS	0.7	5S	66.7	100S
137	HD3407*	0.9	5MS	1.7	20MR	0.0	0	11.2	60S
138	HI1634(C)	1.1	10MR	0.3	TS	1.5	10S	51.8	90S
139	MP3336(C)	12.0	40MS	12.8	30S	15.0	40S	54.1	100S
140	HI8498(C)	14.3	30MS	4.5	20MS	2.7	10S	12.8	60S
140A	Infector	80.0	100S	80.0	100S	74.3	100S	77.5	100S
141	HI8759(C)	4.9	10MS	1.3	15MR	0.7	5S	8.7	40S
142	HI8846	1.3	10MS	3.2	20MS	1.7	10MS	3.9	20MS
143	HI8847	1.2	10MS	3.2	20MS	0.6	5MS	14.7	40S
144	HD2733(C)	3.0	10MS	7.6	20S	11.6	40MS	53.8	90S
145	HD3411*	33.3	60S	8.8	20S	16.3	40S	27.7	60S
146	HD3440	35.7	60S	6.4	20MS	0.6	5MS	1.6	20MR
147	HD3406*	30.0	40S	4.1	20S	6.7	20S	18.0	60S
148	HD3436	10.7	40S	10.0	30S	32.9	80S	3.6	20S
149	HD3437	2.0	10S	4.4	15MS	8.4	20S	1.7	5MS
150	PBW175(C)	4.4	10MS	25.2	80S	21.7	40S	56.2	100S
151	PBW677(C)	4.1	20MS	5.6	20S	8.8	20S	20.5	60S
152	PBW901	42.3	60S	4.9	20MS	2.5	10MS	24.6	60S
153	PBW902	6.3	20S	4.1	20S	2.9	20S	2.2	10S
153A	Infector	80.0	100S	80.0	100S	70.0	80S	77.5	100S

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NIVT No.	Entry	Stem rust		Leaf rust (S)		Leaf rust (N)		Yellow rust	
		ACI	HS	ACI	HS	ACI	HS	ACI	HS
1	DBW187(C)	5.3	10S	5.6	20MS	3.3	10S	20.2	50S
2	HD3086(C)	19.9	40S	10.4	20S	27.9	60S	18.8	60S
3	DBW222(C)	16.0	20S	5.6	20S	5.7	20S	25.8	60S
4	DBW379	1.8	10MS	11.6	20MS	10.4	20S	16.2	40S
5	DBW380	18.3	40MS	4.9	20MS	2.9	10S	14.3	40S
6	DBW381	2.2	10S	3.2	20MS	2.1	10S	7.3	20S
7	DBW382	20.3	40S	19.2	40S	37.3	90S	8.0	40S
8	DBW383	14.3	40S	12.4	40S	22.2	40S	14.6	60S
9	BRW3921	11.4	20S	13.6	20S	6.4	30S	16.3	40S
10	BW17R6045	22.3	40S	9.6	20MS	7.5	40S	25.3	60S
11	HD3419	5.6	20S	4.1	20S	11.5	40S	10.4	40S
12	HD3420	8.4	20MS	7.2	20S	4.3	20S	4.1	20MS
13	HD3421	24.3	40S	1.1	10MR	1.5	10S	27.9	60S
14	HP1974	11.7	40S	8.0	20S	8.9	40S	2.1	10S
15	HUW849	16.6	40S	4.6	10S	8.6	40S	14.0	40S
16	JAUW695	7.9	20MS	13.2	40MS	20.9	40S	1.9	20S
17	K2101	1.7	10MS	12.8	30S	13.3	20S	13.4	40S
18	KRL2002	5.6	60MR	4.8	20S	7.1	10S	20.3	40S
19	NW8046	3.2	20MS	6.4	20MS	3.0	10S	18.1	40S
20	PBW882	12.9	40S	4.8	20MS	4.0	15S	5.8	20MS
20A	Infector	80.0	100S	72.0	100S	74.3	100S	74.2	90S
21	PBW883	10.9	20S	1.6	10MR	5.0	15S	0.2	TS
22	PBW884	6.6	20S	1.2	15MR	10.6	60S	3.6	10S
23	PBW885	4.3	20MR	1.2	15MR	1.7	10MS	2.3	20S
24	PBW886	16.7	40MS	1.3	15MR	12.1	40S	5.0	20S
25	RAJ4566	0.6	5MR	3.3	20MS	5.0	15S	34.8	80S
26	RAJ4567	9.7	20S	9.7	40S	18.3	60S	19.6	60S
27	RAJ4568	0.3	5MR	4.1	20MS	3.7	10S	8.4	40MS
28	RVW4350	6.9	40MS	7.2	10S	10.0	30S	53.5	80S
29	UBW16	16.1	40S	6.1	30S	4.6	10S	13.3	40S
30	UP3101	5.9	20MS	9.2	30S	11.4	40S	18.9	60S
31	UP3102	18.9	40S	4.8	10MS	3.6	10S	13.2	40S
32	UP3103	4.7	20MS	0.9	10MR	2.7	10S	12.3	40S
33	UP3104	5.7	20MS	3.3	20MS	4.4	20S	13.8	50S
34	WH1301	19.7	40S	0.8	10MR	8.0	40S	30.8	80S
35	WH1302	14.3	40S	4.0	10S	1.4	5S	10.0	30S
36	WH1303	5.3	20MS	7.3	20S	3.1	15S	14.3	40S
37	AAI-W49	26.0	40S	21.6	40S	13.1	40S	24.5	60S
38	BRW3910	8.5	40S	3.2	10MS	5.0	20S	26.0	60S
39	BRW3926	3.2	20S	1.3	15MR	5.9	20S	29.5	60S
40	DBW384	14.1	40MS	1.7	10MS	6.6	20S	25.3	70S
40A	Infector	80.0	100S	76.0	100S	67.1	80S	73.3	90S
41	DBW385	0.8	10MR	12.0	20S	17.8	40S	25.3	60S
42	DBW386	2.7	10S	1.6	10MS	6.7	20S	12.9	40S
43	HD3422	5.3	20MS	8.0	20S	18.6	40S	1.8	5S
44	HD3423	27.9	60S	2.0	15MR	2.0	10S	16.3	40S
45	HI1668	11.4	20S	11.3	40S	7.6	40S	15.9	40S
46	HP1975	14.9	40S	2.1	10S	3.2	15MS	11.2	40MS
47	HUW850	30.3	60S	8.0	20MS	0.7	5S	35.7	60S
48	HUW851	17.1	40S	3.7	10S	11.1	40S	22.8	60S
49	JKW297	2.2	10S	4.0	20S	4.0	10S	21.6	50S
50	K2103	4.2	20MS	0.8	10MR	5.4	30S	51.7	80S
51	K2104	15.9	20S	4.1	10MS	6.1	30S	40.7	80S

52	K2105	19.4	40S	7.3	20	5.0	10S	33.4	60S
53	KRL2020	19.4	40S	8.8	20S	3.6	10S	25.2	60S
54	NW8044	5.4	20S	4.8	20MS	1.5	10S	5.8	20MS
55	NW8049	14.9	60MS	1.3	15MR	1.9	10MS	9.2	40S
56	NWS2214	8.6	20S	2.1	10S	1.7	15MS	9.9	40S
57	PBW887	4.7	20MS	5.6	20S	8.9	20S	13.1	40S
58	PBW888	25.7	40S	3.2	20MS	0.3	5MR	2.1	10S
59	PBW889	18.6	40S	6.8	30S	5.8	30S	8.8	30S
60	PBW890	15.3	40S	7.3	20S	8.6	30S	8.3	40S
60A	Infector	82.9	100S	76.0	100S	68.6	80S	72.5	90S
61	RAJ4569	9.0	40MS	7.4	20MS	4.9	10S	15.2	40S
62	RAJ4570	3.4	10S	10.5	20S	1.7	10S	8.8	20S
63	RVW4353	14.6	40MS	16.8	50S	20.7	40S	49.0	80S
64	TAW142	11.9	20S	13.6	30S	18.6	40S	26.3	60S
65	UP3105	12.9	20S	3.1	15S	4.3	10S	13.5	40S
66	UP3106	4.9	20MS	3.3	20MS	1.7	15MS	15.7	40S
67	WH1304	6.1	20MS	9.2	30S	2.1	15S	7.4	20S
68	WH1305	10.0	20MS	7.7	30S	9.4	30S	27.0	60S
69	GW322(C)	8.0	20S	14.4	30S	8.9	40S	54.5	90S
70	HI1544(C)	0.7	10MR	6.1	30S	3.9	10S	59.7	100S
71	MACS6222(C)	4.6	20MS	5.6	20S	5.0	20S	37.2	80S
72	RVW4355	4.1	10MS	5.7	20MS	3.3	10S	48.4	60S
73	AKAW5314	14.9	60MS	9.3	30S	4.7	15S	67.5	80S
74	AKAW5100	7.0	40S	8.8	20S	5.3	20S	57.3	80S
75	BLK-Balaji	6.0	30S	16.8	60S	10.4	40S	62.3	100S
76	CG1043	13.7	60MS	16.0	60S	16.0	40S	68.2	90S
77	DBW387	7.9	20S	4.4	10S	2.9	10S	34.4	90S
78	DBW388	9.1	20MS	2.1	10MS	2.3	10S	26.1	60S
79	GW536	7.6	20S	2.5	10MS	6.9	40S	70.8	90S
80	GW537	2.6	20MR	14.8	30S	7.3	20MS	49.7	90S
80A	Infector	77.1	100S	72.0	100S	67.1	100S	79.2	100S
81	GW540	1.8	10MR	10.0	40MS	20.9	40S	49.7	80S
82	GW541	4.2	10S	9.6	20MS	9.7	40S	49.3	80S
83	HD3424	4.4	20MS	1.1	5S	8.6	30S	34.0	70S
84	HI1669	2.3	20MR	3.3	20MS	3.1	10S	61.5	80S
85	HI1670	1.0	10MR	2.0	10S	3.0	10S	69.2	90S
86	HI1671	0.5	5MR	1.7	10MS	1.7	10S	75.0	100S
87	MACS6808	3.9	20MS	4.8	20MS	2.9	15S	57.2	90S
88	MACS6809	5.3	20MS	6.4	20MS	1.4	10S	51.7	100S
89	MACS6811	20.0	60MS	4.0	10MS	4.9	30S	42.5	90S
90	MACS6815	4.4	20MS	1.6	5MS	7.9	40S	60.5	90S
91	MP1386	0.9	10MR	1.2	15MR	8.7	40S	49.7	80S
92	MP1387	1.3	5MR	1.7	10MS	1.3	5S	42.4	80S
93	MP3558	10.3	60S*	35.2	80S	0.0	0	69.2	100S
94	MP3559	1.5	10S	4.8	30MS	4.9	20S	56.7	80S
95	NIAW4153	0.7	10MR	2.5	15MS	6.6	40S	67.7	80S
96	NIAW4183	0.5	5MR	1.7	10MS	5.7	40S	62.5	80S
97	NWS2222	5.0	20MS	8.0	20S	7.1	40S	41.6	80S
98	PBW891	9.2	20S	2.5	10MS	11.5	40S	22.1	60S
99	PWU15	2.2	10MS	2.0	10S	7.2	40S	51.0	80S
100	RAJ4575	1.7	10MS	12.0	40S	7.9	40S	29.6	80S
100A	Infector	82.9	100S	72.0	100S	77.1	100S	78.3	90S
101	RVW4358	1.4	10MR	6.4	20MS	3.9	20S	33.3	60S
102	UAS3020	7.3	20S	2.0	10S	2.7	15S	32.4	60S
103	UAS3021	16.9	40MS	5.9	20S	2.9	20S	23.8	80S
104	WH1306	4.1	10S	12.4	30S	13.3	40S	12.0	40S
105	DBW107(C)	19.4	40S	12.6	30S	12.4	40S	26.5	60S

106	DBW173(C)	0.7	5MS	6.1	30S	2.6	5S	15.3	40S
107	HD3059(C)	6.3	20MS	6.0	30S	3.4	10S	28.2	60S
108	HI1563(C)	0.7	10MR	4.1	20S	8.0	40S	45.1	80S
109	AAI-W42	16.0	40S	9.6	20S	5.7	20S	13.8	60S
110	BRW3923	12.3	20S	4.1	20S	10.7	40S	25.4	60S
111	DBW389	1.2	10MS	12.8	40S	5.0	20S	21.7	60S
112	DBW390	29.4	60S	4.0	20MS	2.1	10S	22.6	60S
113	DBW391	9.1	20S	8.8	20S	5.8	20S	24.8	60S
114	DBW392	7.1	20S	1.6	10MS	4.0	20S	20.9	60S
115	DBW393	0.5	5MR	11.6	20S	2.6	10MS	24.9	60S
116	HD3425	15.7	60MS	8.8	20S	3.6	15S	23.3	60S
117	HD3426	20.6	40S	4.9	20MS	5.6	15S	3.0	20S
118	HD3427	9.7	20S	2.8	10S	4.4	20S	29.7	60S
119	HD3428	3.6	20MR	3.2	20MS	0.7	5S	15.3	40S
120	HUW852	13.7	40MS	5.6	20S	7.0	15S	42.6	60S
120A	Infector	77.1	100S	76.0	100S	71.4	80S	76.7	100S
121	JKW298	13.7	40MS	6.4	20MS	1.5	10S	31.4	70S
122	K2107	4.7	20MS	10.4	20MS	5.7	20S	25.7	60S
123	K2108	0.9	5MS	1.6	20MR	5.7	15S	17.3	40S
124	K2109	5.0	20MS	9.8	20MS	3.9	10S	51.7	80S
125	NW8040	4.3	20MS	5.0	20MS	4.9	20S	19.9	60S
126	NW8045	5.3	20MS	0.8	5MS	4.3	15S	25.7	60S
127	PBW892	3.0	20MS	3.3	20MS	1.9	5S	22.0	60S
128	PBW893	23.7	60S	6.4	20MS	1.4	10S	1.8	10MS
129	PBW894	23.8	40S	4.1	20S	3.6	15S	5.7	20S
130	PBW895	3.9	20MS	10.4	20S	12.9	40S	4.6	20S
131	PBW896	1.6	10MS	8.0	30MS	5.9	20S	11.3	40S
132	RAJ4572	0.2	5R	9.6	20MS	8.1	20S	22.4	60S
133	RAJ4573	1.6	20MR	13.2	30MS	4.6	20S	17.4	40S
134	RAJ4574	0.3	5MR	13.6	40S	4.0	10S	21.2	60S
135	UP3108	30.4	60S	4.5	15MS	0.7	5S	13.1	40S
136	UP3109	12.9	20S	2.8	10S	3.6	15S	8.6	20S
137	UP3110	31.4	40S	8.0	15MS	7.9	40S	12.3	40S
138	WH1307	7.0	20MS	2.5	15MS	0.7	5S	7.8	20S
139	WH1308	19.5	60MS	2.0	10MR	1.9	10MS	20.8	40S
140	WH1309	8.6	40MS	7.6	20MS	4.7	15S	29.3	60S
140A	Infector	80.0	100S	80.0	100S	72.9	80S	76.7	90S
141	HD2932(C)	3.2	20MR	22.4	60S	19.3	60S	63.2	90S
142	HD2864(C)	1.2	10MR	2.1	10S	1.1	10MS	64.3	100S
143	AKAW5104	1.1	10MR	2.5	15MS	1.0	15MR	66.0	100S
144	CG1042	1.3	10MR	26.0	60S	8.6	40S	60.0	80S
145	DBW394	3.2	10MS	3.1	15S	1.6	10S	45.5	80S
146	DBW395	2.1	10MS	4.0	10MS	7.3	15S	23.1	60S
147	GW538	2.0	20MR	3.2	20MS	4.3	20MS	41.7	80S
148	GW542	0.2	5R	12.4	30S	15.0	40S	60.4	100S
149	HI1672	0.8	5MR	1.2	15MR	7.1	20S	65.0	100S
150	HI1673	1.5	10MR	2.5	15MS	2.9	10S	61.7	100S
151	HI1674	0.5	5MR	2.4	15MS	3.0	15S	55.0	80S
152	HI1675	0.2	5R	1.6	10MS	0.6	10MR	54.5	100S
153	LOK79	0.3	5MR	0.8	10MR	0.6	5MS	46.5	80S
154	MACS6805	3.0	20MS	4.0	20S	2.2	15S	40.5	90S
155	MACS6814	1.3	10MR	3.2	20MS	1.5	5S	37.1	80S
156	MP1388	2.7	10MS	3.3	20MS	0.0	0	54.8	100S
157	MP3556	3.3	20MS	9.2	20S	4.0	15S	14.1	40S
158	MP3557	6.9	20S	9.6	20S	2.5	15MS	47.7	80S
159	NIAW4114	3.7	40MR	6.4	20MS	3.1	10S	61.5	90S
160	NIAW4120	0.7	5MR	2.5	10MS	2.7	15S	69.2	90S

160A	Infector	77.1	100S	72.0	100S	70.0	100S	79.2	100S
161	PBW897	0.9	10MR	6.4	30MS	3.3	10S	7.4	40S
162	UAS3022	11.3	40MS	4.9	30MS	2.6	10MS	13.3	40S
163	UAS3023	9.1	20S	9.6	20S	3.0	10S	27.4	60S
164	WH1310	4.9	20MS	2.1	10S	0.3	5MR	6.6	20MS
165	HI8713(C)	1.7	20MR	3.3	20MS	3.1	10MS	16.4	40S
166	HI8737(C)	5.5	20MS	4.1	20S	1.8	10MS	8.7	30S
167	MACS3949(C)	8.2	60MS*	2.1	10S	2.3	20MS	4.3	20S
168	UAS428(C)	3.3	20MS	2.4	15MS	3.7	10S	5.8	30S
169	DDW59	6.0	40MS	3.2	20MS	4.3	20S	37.7	80S
170	DDW60	2.9	20MR	3.3	20MS	1.3	5S	5.7	40S
171	GW1360	1.8	20MR	3.3	20MS	1.7	15MS	2.8	10S
172	GW1361	3.2	20MS	0.9	10MR	2.7	15S	0.7	5MS
173	GW1363	6.6	20MS	6.5	20MS	0.9	5MS	7.8	20S
174	GW1364	2.0	20MR	0.4	5MR	2.9	10S	5.6	20S
175	HI8841	1.2	5MS	0.9	10MR	1.1	15MR	10.6	40S
176	HI8842	5.2	20S	4.5	20MS	2.0	10S	2.7	10S
177	HI8843	4.2	20MS	0.9	10MR	2.3	15MS	6.3	20S
178	MACS4120	3.6	20S	0.9	10MR	0.6	5MR	2.2	5S
179	MACS4121	5.8	40S	1.3	15MR	0.0	TR	2.7	10S
180	MACS4122	9.3	60MS	0.9	10MR	1.1	10MS	10.6	30S
180A	Infector	80.0	100S	74.0	100S	71.4	80S	74.2	100S
181	MPO1389	0.7	10MR	0.5	5MR	7.7	50S*	5.3	40S
182	MPO1390	3.3	20MS	0.1	R	1.4	10S	2.4	10S
183	NIDW1485	8.2	60MS*	0.9	10MR	2.9	15S	8.6	20S
184	PDW362	9.4	60MS*	1.2	10MR	1.4	10MS	6.4	20S
185	PDW363	8.9	60MS*	0.9	10MR	4.6	15S	7.5	40S
186	PWU18	1.6	10MS	2.5	15MS	2.5	15S	8.3	30S
187	PWU19	6.2	20MS	0.9	10MR	0.0	0	9.3	30S
188	UAS479	10.5	60S*	0.9	10MR	1.9	10MS	6.3	30S
189	UAS480	13.1	80MS	0.5	5MR	1.9	10MS	0.7	5S
190	AKDW4773	11.3	80MS	1.3	15MR	3.6	15S	4.5	40S
191	DBW397	7.5	40MS	5.6	20S	0.3	5MR	12.6	60S
192	HI1612(C)	38.6	80S	2.0	10S	1.0	5S	18.8	60S
193	K1317(C)	12.6	60MS	2.8	10MS	3.4	10S	21.8	60S
194	PBW644(C)	5.1	20S	4.8	20S	8.6	40S	28.5	60S
195	BRW3924	17.9	40S	3.3	20MS	1.5	10S	13.8	40S
196	DBW396	42.9	80S	15.2	40S	8.6	20S	17.0	60S
197	DBW398	29.7	60S	4.8	20MS	3.7	20S	12.3	40S
198	DBW399	45.1	80S	15.6	30S	11.6	40S	13.8	40S
199	HD3429	10.7	20S	6.5	20MS	9.3	40S	36.4	60S
200	HD3430	6.3	20MS	3.3	15MS	3.0	10S	37.2	60S
200A	Infector	77.1	100S	76.0	100S	74.3	100S	75.8	100S
201	HI1676	12.6	40MS	4.8	20S	3.6	15S	31.1	80S
202	HP1976	17.1	40S	8.2	20MS	5.0	20S	11.6	40S
203	HUW853	11.2	30S	13.2	30S	20.0	40S	20.4	40S
204	JAUW704	17.6	60S	4.8	20MS	12.4	40S	4.5	20MS
205	JKW292	9.3	40S	20.0	60S	8.6	20S	60.2	80S
206	K2121	9.7	40S	6.4	20MS	6.0	10S	57.7	80S
207	NW8048	8.6	60S*	0.8	10MR	1.0	5S	31.7	80S
208	PBW898	36.6	60S	1.3	15MR	4.1	15S	22.8	70S
209	PBW899	19.1	60S	2.4	10MS	4.6	20S	4.5	20MS
210	PBW900	6.2	10S	1.8	10MS	4.3	20S	6.8	20S
211	TAW133	16.3	40MS	10.4	20S	20.9	40S	23.4	60S
212	UP3111	14.7	60S	6.4	20MS	3.6	10S	9.9	40S
213	UP3112	14.0	20S	10.4	20S	3.7	10S	16.4	60S
214	WH1311	7.5	30MS	0.1	TR	2.6	10S	13.3	40S

215	WH1312	7.2	20MS	0.9	10MR	3.9	15S	25.2	60S
216	DBW110(C)	7.6	20MS	4.8	15MS	1.5	10S	37.8	80S
217	HI1605(C)	3.7	20MS	14.4	40S	6.3	20S	38.8	60S
218	HI8627(d)(C)	2.9	20MS	2.5	15MS	1.9	10MS	11.7	80S
219	UAS446(d)(C)	2.0	10MS	1.7	10MS	0.7	5S	4.9	40S
220	CG1041	6.3	20MS	32.4	70S	22.1	60S	47.9	100S
220A	Infector	80.0	100S	80.0	100S	72.9	100S	77.5	100S
221	DBW400	3.5	10S	0.1	TR	2.9	10S	23.9	60S
222	DDW61(d)	2.6	20MR	4.4	15MR	2.1	10S	1.8	10S
223	GW1362(d)	1.2	10MS	3.3	20MS	5.3	15MS	54.2	80S
224	GW539	0.9	10MR	18.0	30S	14.3	40S	58.8	80S
225	HI1677	1.5	10MR	2.5	15MS	2.3	10S	65.5	90S
226	HI1678	0.4	5R	2.5	15MS	3.0	10S	57.5	90S
227	HI1679	2.7	20MS	1.7	10MS	3.3	10S	55.5	90S
228	HI8844(d)	3.5	20MS	0.9	10MR	2.4	10S	8.2	20S
229	HI8845(d)	2.3	5MS	3.2	10MS	1.4	10S	11.6	40S
230	MACS6797	3.2	40MR	3.2	20MS	1.4	10S	35.7	90S
231	MACS6801	9.3	20MS	10.0	30S	3.9	15MS	43.8	80S
232	MP1384	2.0	10MS	10.0	20S	2.1	10S	19.3	60S
233	MP1385	3.5	20MR	12.6	20MS	13.6	60S	21.9	40S
234	MP3562	4.4	10S	4.2	20MS	4.3	20S	21.3	90S
235	NIAW4172	0.5	5MR	1.6	10MS	0.7	5S	60.5	100S
236	NIAW4178	3.7	20MS	3.2	20MS	3.7	20MS	65.3	80S
237	UAS3024	14.0	60MS	7.7	30S	5.3	15S	46.9	80S
238	UAS481(d)	8.4	40MS	1.3	15MR	9.3	40S	6.7	20S
239	WSM253	20.9	40S	19.6	30S	31.4	80S	59.0	100S
240	DBW303(C)	4.6	10S	1.7	15MR	2.9	15S	14.3	40S
240A	Infector	80.0	100S	84.0	100S	71.4	80S	79.2	100S
241	DBW296	10.0	60MS	1.7	10MS	0.7	5S	7.0	40S
242	BRW3922	22.9	40S	4.0	15MS	3.1	15S	34.3	60S
243	DBW403	3.3	10MS	1.2	15MR	2.9	10S	6.0	20MS
244	DBW404	0.6	10MR	2.5	15MS	2.5	15MS	8.4	40S
245	HD3431	24.6	40S	4.8	20S	2.4	5S	15.5	40S
246	HD3432	17.7	40S	0.8	5MS	1.5	10S	24.6	60S
247	HD3433	5.9	20S	1.6	10MS	2.1	15S	9.0	20S
248	HI1682	13.1	30MS	6.4	20S	2.1	10S	29.3	60S
249	K2001	2.9	10MS	4.0	20S	1.4	5S	28.0	60S
250	PBW877	16.5	40S	3.2	20MS	7.0	20S	6.0	40S
251	PBW878	4.1	10MS	5.6	20MS	2.6	5S	12.3	40S
252	PBW879	12.9	20S	3.3	20MS	7.9	40S	22.1	60S
253	PBW880	12.1	40MS	1.6	10MS	7.9	40S	18.8	60S
254	RAJ4571	1.3	10MR	1.6	10MS	1.4	5S	25.6	60S
255	UP3115	12.3	30S	3.2	20MS	9.3	40S	25.3	60S
256	UP3116	5.7	20MS	2.4	15MS	3.0	15S	5.3	20MS
257	WH1313	2.9	10MS	6.4	20MS	5.0	20S	9.1	40S
258	WH1314	2.6	10S	1.7	10MS	5.0	10S	9.2	40S
259	CG1044	10.9	40MS	18.4	40S	13.1	40S	48.7	80S
260	DBW401	5.8	20MS	11.3	40S	4.3	20S	9.5	40S
260A	Infector	82.9	100S	80.0	100S	70.0	80S	70.8	90S
261	DBW405	21.4	40S	5.6	20MS	6.5	15S	22.7	90S
262	DBW406	4.0	15MS	1.6	20MR	10.6	20S	28.5	90S
263	GW543	9.4	20S	0.9	10MR	6.5	20S	47.0	80S
264	GW544	1.4	10MR	2.4	15MS	4.4	15S	45.7	80S
265	GW545	3.1	20MS	7.6	20S	11.7	20S	47.5	90S
266	GW546	0.5	5MR	4.9	30MS	2.9	20S	51.6	80S
267	HD3435	5.5	20S	4.9	20MS	2.1	15S	12.1	50S
268	HI1680	0.5	5MR	4.1	20S	4.2	20S	51.8	80S

269	HI1681	2.3	20MR	1.7	10MS	0.8	5S	51.5	80S
270	HP1977	22.1	40S	7.6	30S	9.9	20S	19.4	70S
271	MACS6802	4.6	20MS	2.0	10S	2.1	15MR	25.2	60S
272	MACS6803	2.9	20MR	4.0	20S	1.4	10S	26.2	80S
273	MP1391	8.0	20S	4.1	20S	5.0	20S	29.2	90S
274	MP3564	0.2	5R	6.0	30S	0.0	0	44.7	80S
275	MP3567	0.3	10R	1.6	10MS	6.4	40S	43.3	80S
276	NIAW4040	1.2	10MR	9.2	20MS	3.4	15S	44.8	80S
277	NIAW4174	0.7	5MR	3.2	20MS	6.4	40S	53.0	80S
278	PBW881	7.2	20S	3.3	20MS	3.6	15S	18.8	70S
279	UAS3025	41.7	60S	4.0	10MS	2.0	10S	32.7	80S
280	UAS3026	32.9	60S	6.8	30S	2.1	10S	38.7	80S
280A	Infector	80.0	100S	84.0	100S	74.3	100S	77.5	90S

Abbreviations: ACI = Average Coefficient of Infection, HS = Highest Score, *Indicates high rust score (more than 40S) at one location only.

Stem rust: Data of Dharwad and Pune have not been considered due to low disease pressure in infector and no sufficient disease spread in lines

Leaf rust (S): Data of Junagarh, Vijapur, Indore and Dharwad have not been considered due to low disease pressure in infector and no sufficient disease spread in lines

Leaf rust (N): Data of Durgapura and Ayodhya have not been considered due to low disease pressure in infector and no sufficient disease spread in lines

Yellow rust: Data of Bajaura have not been considered due to no sufficient disease spread in lines.