

Table 3: Seedling response, *Lr* genes in AVT I and II against the pathotypes of *Puccinia triticina* (wheat leaf/brown rust) during 2019-20 at ICAR-IIWBR, RS, Flowerdale, Shimla

S. no.	Variety/Line	Pathotype																						<i>Lr</i> gene/s	Remarks
		11	12A	12-3	12-5	12-7	77	77-1	77-2	77-5	77-7	77-8	77-9	77-10	77A-1	104-2	104-4	104-1	106	107-1	108-1	16-2-1	16-2A		
1	HS 507 (C)	R	R	R	R	R	R	R	NG	R	S	NG	MR	NG	R	R	MR	R	R	R	R	R	R	<i>Lr</i> 26+1+	
2	HS 562 (C)	R	R	R	R	S	R	MS	R	S	S	R	S	S	R	S	R	S	R	R	R	R	R	<i>Lr</i> 23+	
3	HPW 349 (C)	R	R	R	R	R	MR	R	R	S	S	R	S	S	R	MS	R	MR	R	R	R	R	R	<i>Lr</i> 13+10+	
4	HS 668	R	R	R	R	R	R	R	R	S	S	R	S	R	R	S	R	R	R	R	R	R	R	<i>Lr</i> 26+23+1+3+	
5	VL 907 (C)	R	R	R	R	R	R	R	R	R	R	R	S	R	R	MR	S	R	R	R	R	R	R	<i>Lr</i> 26+	
6	VL 2036	R	R	R	MS	MR	R	R	R	R	R	R	R	R	R	S	S	MS	R	R	R	M R	R	<i>Lr</i> 23+10+2a+	
7	HS 681	R	R	R	R	R	R	R	R	S	MS	R	R	MR	R	S	S	R	R	R	R	R	R	<i>Lr</i> 26+23+1+	
8	VL 3022	R	R	R	R	R	R	R	R	MS	R	R	MS	S	R	R	R	R	R	R	R	R	R	<i>Lr</i> 26+23+1+	
9	HS 680	R	R	R	R	R	R	R	R	R	R	R	S	R	R	R	R	R	R	R	R	R	R	<i>Lr</i> 26+23+10+1+	
10	VL 3023	R	R	R	R	R	R	R	R	S	R	R	MS	R	R	S	MR	R	R	R	R	R	R	<i>Lr</i> 26+23+	
11	HPW 474	R	R	R	R	MR	R	R	R	R	R	R	R	R	R	S	R	S	R	R	R	R	R	<i>Lr</i> 13+10+3+2a+	
12	UP 3069	R	M R	S	R	MS	S	S	S	S	MS	S	S	S	S	S	S	S	R	MS	R	R	R	-	
13	HPW 473	R	S	S	S	S	S	S	MS	S	S	S	S	S	S	S	R	S	R	R	R	S	M R	<i>Lr</i> 13+3+	
14	VL 892 (C)	R	S	R	R	R	R	R	R	S	S	MS	S	S	R	R	S	S	R	R	R	R	R	<i>Lr</i> 13+10+	
15	VL 3024	NG	NG	R	R	NG	R	R	R	R	R	R	MS	S	R	MS	R	R	R	R	R	R	R	<i>Lr</i> 26+23+10+1+	
16	HS 490 (C)	R	S	R	R	R	R	R	R	S	MR	R	S	S	R	S	R	S	R	R	R	R	R	<i>Lr</i> 23+10+3+	

40	HD3331#WB	R	R	R	MS	MS	S	R	MR	S	R	R	S	S	R	S	R	S	R	R	R	R	R	R	Lr23+13+3+
41	HD3298*	R	R	R	R	R	R	R	R	MS	R	R	R	R	R	S	S	S	R	R	R	R	R	R	Lr23+2a
42	WH1124(C)	R	R	R	R	MS	R	S	MS	S	MS	R	S	S	R	S	R	S	R	R	R	R	R	R	Lr13+10+3+
43	UP3033	R	R	R	R	MS	R	R	R	S	R	R	R	R	R	MS	R	R	R	R	R	R	R	R	Lr26+10+3+
44	HUW838#WB	R	MR	NG	R	R	R	MS	MS	S	MS	R	R	S	NG	S	R	R	R	R	MR	R	R	R	Lr13+10+3+
45	HD3043(C)	R	R	R	R	MS	R	S	R	S	S	R	S	S	R	S	S	R	R	R	R	R	MS	R	Lr26+23+
46	PBW644(C)	R	R	R	R	R	R	R	MS	S	R	R	S	S	MS	S	S	S	R	R	R	R	R	R	Lr13+1+
47	DBW296	R	S	R	MS	S	R	R	MS	S	R	R	MS	S	S	S	S	S	R	R	R	R	R	R	Lr23+13+10+
48	HI1628(I)(C)	R	R	R	R	R	S	R	MS	S	R	R	S	S	S	R	S	S	R	R	R	R	R	R	Lr13+10+
49	WH1080(C)	R	R	R	S	MS	S	R	S	S	MR	R	S	S	S	S	R	S	R	R	R	S	R	R	Lr13+3+
50	JAUW672	R	R	R	MS	MS	S	R	MS	S	S	R	S	S	R	S	S	S	R	R	R	R	R	R	Lr23+13+
51	WH1142(C)	R	R	R	R	MS	R	R	R	S	MS	R	R	R	R	S	R	R	R	R	R	R	S	R	Lr26+23+10+3+
52	NIAW3170(I)(C)	R	R	R	R	R	R	R	S	S	R	R	MS	S	R	R	S	R	R	R	R	R	R	R	Lr13+10+1+
53	PBW804	R	S	R	S	S	S	R	S	S	R	R	R	S	R	S	S	S	R	R	R	R	R	R	Lr13+
54	DBW187(C)	R	R	R	R	R	R	R	R	MS	MS	R	S	MS	R	R	R	R	R	R	R	R	R	R	Lr23+10+1+
55	K1006(C)	R	R	R	R	R	S	R	R	S	S	R	S	S	MR	S	S	R	R	R	R	R	R	R	Lr13+1+
56	DBW39(C)	R	R	R	R	R	R	R	R	S	R	R	R	R	R	R	S	R	R	R	R	R	R	R	Lr26+23+10+
57	HD3249(I)(C)	R	R	R	R	R	R	R	R	S	R	R	S	S	R	R	R	R	R	R	R	R	R	R	Lr13+10+
58	HD2733(C)	R	R	MS	S	S	R	R	R	M	R	R	S	S	R	S	S	R	R	R	R	R	R	R	Lr26+34+
59	HD3171(C)	R	S	R	R	MS	NG	R	MS	MS	R	R	S	S	R	R	R	R	R	R	R	R	R	R	Lr23+13+10+
60	HD2888(C)	R	R	R	R	R	R	R	R	S	R	R	S	R	R	S	S	R	R	R	R	R	R	R	Seed*

83	MACS675 2	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
84	NIDW 1149(d)*	R	MS	R	R	R	R	R	R	R	R	R	R	R	R	S	S	R	R	R	R	R	R	R	R	R	R	Lr23+	
85	UAS446 (d) (C)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
86	HI 1605 (C)	R	M	S	S	MR	S	S	R	S	R	MS	S	S	R	S	S	S	R	R	R	M S	M S	R	R	R	Lr13+		
87	MACS 4087(d)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	-	R
88	MP 1358	R	R	R	R	R	R	R	R	S	NG	R	S	MS	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr23+10+	
89	AKDW 2997-16(d) (C)	R	R	MS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	M S	R	R	R	Lr23+		
90	HI8805(d) (I) (C)	S	S	R	MR	S	R	R	R	R	R	R	R	R	R	S	S	MR	R	R	R	R	R	R	R	R	Lr23+		
91	UAS 472(d)	S	S	MS	MS	MR	R	MS	R	MS	R	R	R	R	R	S	S	MS	S	R	R	S	M S	R	R	-			
92	MPO 1357(d) ^Q	R	S	R	S	S	R	R	R	R	R	R	R	R	R	S	S	MS	S	R	R	R	R	R	R	R	Lr23+		
93	NIAW317 0(I) (C)	R	R	R	R	R	R	R	MS	MS	MS	R	S	MS	R	R	S	R	R	R	R	R	R	R	R	R	Lr13+10+1 +		
94	MACS505 5	S	MS	R	R	R	R	R	R	S	R	R	MS	R	S	R	S	MS	S	R	R	R	R	R	R	R	Lr23+		
95	MACS622 2 (aest.) (C)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr24+	R
96	DDK1029 (C)	S	R	R	R	R	R	R	R	R	R	R	R	R	R	R	S	R	MS	R	R	S	R	R	R	R	Lr13+		
97	MACS505 4	S	R	R	R	R	R	R	R	R	R	R	R	R	R	S	MS	MS	R	R	R	R	R	R	R	R	-		
98	DDK1058	S	MS	R	R	R	R	R	R	R	R	R	R	R	R	S	R	S	R	R	R	R	R	R	R	R	-		
99	HW1098 (C)	MS	S	MS	R	R	NG	R	R	MR	R	R	R	R	R	S	R	S	R	R	R	N G	R	R	R	R	Lr18+		
100	DDK1059	M R	R	MS	MR	R	R	R	R	R	R	R	R	R	R	S	R	S	R	R	R	R	R	R	R	R	-		
101	DBW327	R	R	R	R	R	R	R	MS	S	MS	R	S	S	R	R	S	R	R	R	R	R	R	R	R	R	R	Lr23+1+	
102	HD3086 (C)	R	R	R	R	S	R	S	S	S	S	R	S	S	R	S	R	S	R	R	R	M S	R	R	R	R	Lr13+10+3 +		

103	DBW332	R	R	R	R	R	S	R	R	MR	MS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr13+1+			
104	DBW303*	R	R	MS	R	R	S	R	MS	S	R	R	MS	R	S	R	R	MS	R	R	R	R	R	R	R	R	R	R	Lr13+		
105	HD2967 (C)	R	R	R	R	R	R	R	R	R	R	R	S	S	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr23+		
106	DBW187*	R	R	R	R	R	R	R	R	MR	S	R	MS	MR	R	S	R	R	R	R	R	R	R	R	R	R	R	R	Lr23+10+1+		
107	DBW329	R	R	R	R	R	S	R	S	S	R	R	S	S	S	MS	S	R	R	R	R	R	R	R	R	R	R	R	Lr13+1+		
108	WH1252	R	S	S	S	MS	S	R	S	S	R	R	S	S	S	S	S	S	R	R	R	R	R	R	R	R	R	R	Lr13+		
109	HD3378	R	R	R	R	R	R	R	MS	S	S	R	S	S	R	S	S	R	R	R	R	R	R	R	R	R	R	R	Lr23+1+		
110	WH1270*	R	R	R	R	R	MS	R	MS	S	R	R	S	NG	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr23+		
111	DBW333	R	R	R	R	R	R	MS	R	S	R	R	R	MS	S	R	S	R	R	R	R	R	R	R	R	R	R	R	Lr13+10+1+		
112	DBW330	R	R	R	R	R	MS	R	R	R	R	R	S	MS	R	R	M	R	R	R	R	R	R	R	R	R	R	R	Lr13+10+		
113	DBW328	R	R	R	R	R	R	R	R	R	R	R	MS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr23+10+1+		
114	DBW331	R	R	R	R	R	R	R	R	MR	R	R	R	S	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr23+10+1+		
115	TAW155	R	R	R	R	R	R	R	R	S	MS	R	R	R	S	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr13+10+1+2a+		
116	HI1636	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr24+	R	
117	MP1361	R	R	R	R	R	R	R	R	R	R	R	MS	R	S	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr13+10+1+		
118	MACS674 7	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr24+	R	
119	HD3377 ^B	R	R	R	R	R	R	R	MR	S	S	R	S	S	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr23+1+		
120	HI1637	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr24+	R	
121	RAJ4541 ^B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr24+	R	
122	GW513	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr24+	R	
123	GW322	R	R	R	R	R	S	R	MS	S	MS	R	S	MS	MS	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr13+1+		
124	HI1544	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N G	N G	Lr24+	R
125	HI1634 ^{Q*}	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr26+	R	
126	HD2932	R	S	S	S	S	S	R	S	S	S	S	S	S	R	S	S	S	R	S	NG	S	M S	R	R	R	R	Lr13+			
127	MP3336	R	S	S	R	S	R	R	S	S	S	R	S	R	R	S	S	R	R	R	R	R	R	R	R	R	R	R	Lr13+		
128	HD2864	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr24+	R	
129	CG1029*	R	R	R	R	R	NG	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	N G	Lr24+	R	

