

Table: Seedling response of AVT lines against the pathotypes of *Puccinia triticina* (wheat brown rust) during 2022-23 at ICAR-IIWBR, RS, Shimla

S. No.	Variety/ line	Pathotype																				Lr-gene			
		I1	I2-2	I2-3	I2-5	I2-7	I6-1	77	77-1	77-2	77-5	77-7	77-8	77-9	77-10	77A-1	104-1	104-2	104-4	106	107-1		108-1	162-A	162-1
1.	HS691	R	R	S	MX**	S	R	S	S	S	S	S	S	S	S	MS	S	S	R	MR	S	MS	S	.*	
2.	HS692	R	S	R	R	S	R	R	R	S	R	S	S	S	R	MX	S	S	R	R	MX	MX	R	Lr13+10+ *	
3.	VL3028	R	R	R	MR	S	R	R	R	MS	MS	S	R	S	S	R	S	R	R	R	R	R	R	Lr13+ 10+ *	
4.	HPW484	R	R	R	S	R	R	R	S	S	MS	R	R	S	S	MX	R	S	R	MX	MX	R	R	Lr13+*	
5.	VL907(C)	R	S	R	R	R	R	R	R	S	R	R	R	MS	R	S	MR	S	S	R	S	R	MX	.*	
6.	VL892(C)	R	R	R	R	MR	R	R	S	S	MR	R	MR	S	S	R	R	R	R	R	R	R	R	Lr13+10+	
7.	HPW349(C)	R	R	R	MR	S	R	R	R	R	S	R	R	S	MS	R	R	R	R	R	R	R	R	Lr23+10+	
8.	HS562(C)	R	R	R	MR	S	R	MR	S	MR	S	S	R	S	S	R	R	R	R	R	R	R	R	Lr23+10+3+	
9.	VL2041(I)(C)	R	R	R	R	MS	R	R	S	S	S	R	R	S	S	R	R	R	R	R	R	R	MS	Lr13+	
10.	PBW887	R	R	R	MS	S	R	R	R	R	S	S	R	S	S	R	R	MR	MS	R	R	R	R	Lr13+	
11.	PBW889	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
12.	HD3386	R	R	R	R	MR	R	R	MR	R	S	R	R	R	R	R	R	R	R	R	R	R	R	.*	
13.	HD3470	R	R	R	R	R	R	S	S	S	S	S	S	S	S	R	R	R	R	R	R	R	R	Lr13+1+	
14.	HI1668	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Lr26+ R	
15.	DBW386	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
16.	UP3102	R	R	R	R	R	R	R	S	R	S	R	R	S	S	S	R	R	R	R	R	R	R	Lr13+1+	
17.	HD3428	R	R	R	R	R	NG	R	MS	S	R	R	MS	R	R	R	R	R	R	R	R	R	R	Lr23+1+	
18.	PBW893	R	R	R	R	S	R	R	R	R	MX	R	MS	S	S	R	R	S	S	R	R	R	R	Lr23+10+	
19.	K2108	R	R	R	R	R	R	R	S	R	S	S	R	MS	MS	R	R	MR	S	R	R	R	R	Lr26+1+	
20.	HD3059(C)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R*	
21.	DBW173(C)	R	R	R	R	R	R	R	MR	R	MS	R	R	S	S	R	R	R	R	R	R	R	R	Lr23+10+1+*	
22.	PBW771(C)	NG	S	R	R	R	R	S	S	S	S	R	R	S	S	R	S	S	S	R	R	S	MX	Lr13+*	
23.	JKW261(C)	R	S	NG	MS	MR	R	S	S	MR	S	R	MS	S	S	S	MR	S	S	R	R	R	R	Lr13+*	
24.	WH1402	R	R	R	R	R	R	S	S	S	S	R	R	S	S	S	R	S	S	R	R	R	R	Lr13+1+	
25.	WH1311	R	S	R	S	S	MR	R	MR	S	S	S	R	S	S	R	S	S	S	R	R	S	R	Lr23+	
26.	UP3111	NG	R	NG	R	S	NG	NG	S	R	S	R	R	S	S	R	NG	R	NG	NG	R	NG	R	Lr13+10+	
27.	PBW899	R	R	R	R	R	R	R	R	R	MS	R	R	S	MS	R	R	R	R	R	R	R	NG	Lr23+10+1+	
28.	PBW644(C)	R	R	R	R	R	R	R	R	MS	MS	MS	R	S	MS	R	R	R	R	R	R	R	R	Lr13+1+	
29.	DBW296(C)	R	S	R	R	S	R	R	R	S	S	S	R	S	S	R	S	S	S	R	R	R	R	Lr23+13+10+	
30.	HD3369(I)(C)	R	R	R	S	S	R	R	R	S	S	R	R	S	S	R	R	S	S	R	R	R	R	Lr13+	
31.	HI1653(I)(C)	R	R	R	R	S	R	R	S	S	S	R	S	S	S	R	R	R	R	R	R	R	R	Lr13+10+3+	
32.	HI1654(I)(C)	R	R	R	S	S	R	R	R	MS	S	R	R	S	S	R	R	MR	S	NG	R	R	R	Lr13+	
33.	HD3388	R	S	R	S	S	R	S	S	S	S	S	S	S	S	MS	S	R	R	R	R	R	R	Lr13+3+ *	
34.	HD3471	R	M	R	R	S	R	R	S	S	S	MR	S	S	R	S	S	MS	R	R	R	MS	R	Lr13+10+	
35.	HD3249(C)	R	R	R	S	S	R	R	S	R	R	R	R	S	MR	R	R	MR	S	R	R	MX	R	Lr13+*	
36.	HD3086(C)	R	R	R	R	R	R	R	R	MS	MS	R	R	MR	S	R	R	R	R	R	R	R	R	Lr13+10+3+	
37.	HD2967(C)	R	R	NG	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	NG	R	R	R*	
38.	DBW222(C)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R*	
39.	PBW826(I)(C)	R	R	R	R	S	R	R	S	S	S	S	S	S	S	S	R	S	MS	R	R	R	S	Lr13+10+*	
40.	DBW398	R	R	R	R	S	R	MX	S	R	S	R	R	S	S	R	R	MS	S	R	R	R	R	Lr13+10+	
41.	HI1612(C)	R	R	R	MS	MS	R	R	R	R	S	R	R	S	S	R	R	R	R	R	R	R	R	Lr23+	
42.	K1317(C)	R	R	R	R	R	R	R	R	R	R	R	R	R	S	R	R	R	R	R	NG	R	R	Lr28+*	
43.	HD3171(C)	R	R	R	R	R	R	MR	S	MR	MS	R	MS	S	S	S	R	R	MR	R	R	R	R	Lr23+13+10+	
44.	HD3293(C)	R	R	R	R	R	R	R	R	R	MS	R	MS	S	MX	R	R	R	R	R	R	R	R	Lr13+10+	
45.	DBW252(C)	R	R	R	R	MR	R	R	S	S	S	MS	S	S	S	R	R	R	MS	R	R	R	MS	Lr13+10+	

100.	UAS3022	R	S	R	R	S	R	R	R	S	S	R	R	S	S	R	R	S	S	R	R	R	R	R	R	<i>Lr23+10+</i>
101.	UAS3023	R	R	R	R	R	R	S	S	S	S	MS	R	S	S	S	R	MR	S	R	MR	MS	R	R	<i>Lr13+1+</i>	
102.	MP3557	R	R	R	R	MS	R	S	S	S	S	R	S	S	S	R	S	S	R	MR	R	R	R	R	<i>Lr13+</i>	
103.	MP3556	R	R	R	R	S	R	NG	MR	MS	S	S	R	S	MS	R	R	R	R	R	R	R	R	R	<i>Lr23+10+</i>	
104.	PBW897	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	<i>R</i>	
105.	MP1388	R	S	R	R	S	R	R	S	MS	R	R	R	S	S	R	MS	S	S	R	R	R	S	R	<i>Lr13+10+</i>	
106.	GW542	R	R	R	R	R	R	R	R	S	MS	R	R	S	MS	S	R	MR	R	R	R	R	R	R	<i>Lr13+</i>	
107.	GW538	R	R	R	R	S	R	R	S	MS	S	R	R	S	S	S	R	R	MR	R	R	R	R	R	<i>Lr13+</i>	
108.	WH1310	R	S	S	S	S	S	S	S	S	S	S	R	S	S	S	S	S	S	R	S	S	S	S	<i>-*</i>	
109.	LOK79	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	<i>R</i>	
110.	RAJ4083(C)	R	R	R	R	R	R	R	MS	MS	S	R	R	S	S	R	R	MS	MS	R	R	R	R	R	<i>Lr13+</i>	
111.	HD3090(C)	R	S	R	R	S	MR	R	S	S	S	R	R	S	S	R	S	S	S	R	MS	R	MS	MS	<i>Lr13+10+*</i>	
112.	HI1633(C)	R	R	R	R	R	R	R	MX	R	MS	R	R	S	S	R	MS	MS	R	R	R	R	R	R	<i>Lr13+10+*</i>	
113.	UAS478(d)	R	R	R	MS	S	R	R	R	S	R	R	R	S	MS	R	R	S	S	R	R	R	R	R	<i>Lr23+</i>	
114.	UAS481(d)	R	S	R	R	R	R	MS	S	S	S	R	R	MS	MR	S	S	S	S	R	R	R	S	R	<i>Lr13+</i>	
115.	HI1665	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	<i>R</i>	
116.	HI8840(d)	R	R	R	R	R	R	R	R	MR	MS	R	R	MX	R	R	R	R	NG	R	R	R	NG	R	<i>Lr23+ 10+1+</i>	
117.	DBW397	R	R	R	R	MS	R	R	S	S	S	R	S	S	S	R	R	R	MS	R	R	R	R	MS	<i>Lr13+10+</i>	
118.	DDW61(d)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	<i>R</i>	
119.	NIAW4028	R	R	R	R	R	R	R	R	R	R	R	R	R	MS	MS	R	R	R	R	R	R	R	R	<i>-</i>	
120.	HI1605(C)	R	R	R	R	R	R	R	S	R	R	S	R	S	S	R	R	R	R	R	R	R	R	R	<i>Lr13+</i>	
121.	NIAW3170(C)	R	R	R	R	R	R	R	R	MS	S	R	MR	S	S	R	R	MR	MS	R	R	R	R	R	<i>Lr13+10+</i>	
122.	UAS446(d)(C)	R	R	R	R	R	R	R	S	MS	S	R	S	S	S	R	R	R	MS	R	R	R	R	R	<i>Lr13+10+*</i>	
123.	NIDW1149(d)(C)	R	R	MS	MR	R	R	R	MX	MS	S	R	R	S	S	R	R	MS	MR	R	R	R	R	R	<i>Lr23+10+</i>	
124.	DBW380	R	R	MX	MX	S	R	R	S	R	S	R	R	S	S	R	MS	S	S	R	R	R	MS	R	<i>Lr13+10+</i>	
125.	DBW370(I)(C)	R	R	R	R	R	R	MR	S	R	S	R	S	S	R	R	R	S	MS	R	R	MS	R	R	<i>Lr13+1+</i>	
126.	DBW371(I)(C)	R	S	R	R	S	R	R	S	S	S	MS	R	S	S	R	R	S	S	R	R	R	R	R	<i>Lr23+ 1+</i>	
127.	DBW372(I)(C)	R	R	R	R	M	R	MS	S	S	S	MS	MS	S	S	S	R	MR	R	R	R	R	R	R	<i>Lr13+*</i>	
128.	PBW872(I)(C)	R	R	R	R	MR	R	R	S	S	S	R	R	S	S	S	R	R	R	NG	R	R	R	R	<i>Lr13+1+*</i>	
129.	DBW377	R	R	R	R	R	R	MS	S	S	S	S	R	S	S	S	R	R	R	R	R	R	R	R	<i>Lr13+1+*</i>	
130.	CG1044	R	S	NG	R	S	R	S	S	MS	S	R	MS	S	S	S	MS	S	S	NG	R	NG	R	R	<i>-</i>	
131.	GW543	R	R	R	MS	R	R	MS	S	S	S	R	R	S	S	MR	R	R	R	R	R	NG	R	R	<i>Lr13+10+</i>	
132.	DBW187(C)	R	MX	R	S	S	R	R	S	MX	S	S	R	S	S	R	MX	S	S	R	R	R	R	R	<i>Lr13+*</i>	
133.	DBW303(C)	NG	R	R	R	S	R	R	S	S	S	S	MS	S	S	R	R	S	MX	R	R	R	R	R	<i>Lr13+</i>	
134.	GW322(C)	S	R	MR	S	S	R	S	S	S	S	R	MS	S	S	S	R	S	S	MS	MS	S	MS	S	<i>-*</i>	

* Different seed lot to that of previous cropping season, ** MX: mix infection types; -: Gene not postulated, R: resistant to all pathotypes;