

Annexure 5: Seedling Resistance Test of AVT 1st against pathotypes of black rust (*Puccinia graminis tritici*) at Shimla during 2014-2015

S. No.	VARIETY	PATHOTYPES																			Gene postulation
		11	11A	15-1	21	21A-2	24A	34-1	40A	40-2	40-3	122	117-1	117-3	117-4	117-5	117-6	184	184-1	295	
		1	2	3	20	4	5	6	7	8	9	10	12	13	14	15	16	17	18	19	
Northern Hills Zone																					
1	HPW393	MS	R	R	R	R	R	R	MS	R	MS	R	R	R	R	R	R	R	R	R	Sr11+
2	HPW394	MR	R	R	R	R	R	R	MS	R	R	R	R	R	MS	R	R	R	R	MS	Sr11+
3	HPW413	MS	S	S	R	R	R	MR	MS	R	S	R	R	R	R	R	R	S	R	S	Sr7b+
4	HPW421	R	R	MS	R	R	R	R	R	R	MS	R	R	R	R	R	R	R	S	R	Sr5+8a+11+
5	HPW422	R	R	R	R	R	MR	R	R	R	R	R	R	R	R	R	R	R	MS	R	Sr11+
6	HS580	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr5+31+
7	HS583	S	R	R	R	R	MR	R	MS	R	S	MR	S	R	MS	MS	MS	R	S	MS	Sr2+9b+11+
8	HS590	S	MR	R	R	R	R	R	MR	R	S	S	MR	R	R		MR	R	S	MS	Sr2+7b+
9	HS596	R	R	R	R	R	R	R	R	R	MS	R	MS	R	MS	R	R	R	R	R	Sr11+
10	HS597	S	R	R	R	R	R	R	R	R	S	R	MR	R	MR	R	S	R	R	MR	Sr2+11+
11	HS598	R	R	S	R	R	R	R	R	R	S	R	MR	R	R	R	R	R	R	R	Sr2+30+
12	HS599	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr2+31+
13	HS600	MR	R	S	R	R	R	R	MS	R	S	R	MS	R	R	R	R	R	R	R	Sr2+7b+
14	HS601	R	R	S	R	R	R	R	MR	MS	R	R	MR	R	R	R	R	R	R	R	Sr5+7b+
15	UP2917	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr2+31+
16	UP2918	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr2+31+
17	VL1005	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr2+31+
18	VL1006	R	R	R	R	R	R	R	MS	R	MR	MR	MS	R	R	R	R	R	MS	MS	Sr2+11+
19	VL1007	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr2+31+
20	VL3002	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr2+R+
21	VL3007	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr2+31+
22	VL3008	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr31+
23	VL3009	R	R	S	R	R	R	MS	MR	R	R	R	R	R	R	R	R	R	R	R	Sr30+
24	VL4001	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr2+31+
North Western Plain Zone																					
25	DBW147	R	R	MR	R	MS	R	R	R	S	R	R	R	R	R	R	R	R	R	R	Sr2+30+
26	DBW148	S	S	S	MS	S	R	S	S	S	S	S	MS	MS	MR	R	MS	S	S	MS	Sr2+7b+
27	DBW150	MR	R	S	R	R	R	R	S	R	S	R	S	R	R	MS	R	R	MS	R	Sr2+7b+
28	DDW31	R	R	R	R	R	S	R	R	R	R	R	S	S	S		S	R	MS	R	Sr2+11+

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		11	11A	15-1	21	21A-2	24A	34-1	40A	40-2	40-3	122	117-1	117-3	117-4	117-5	117-6	184	184-1	295		
		1	2	3	20	4	5	6	7	8	9	10	12	13	14	15	16	17	18	19		
29	DDW32	R	R	S	R	R	MS		S	S	S	R	S	S	MS	R	S	MS	S	R	Sr2+7b+	
30	HD3159	R	R	R	R	R	R	R	R	R	MR	R	R	R	R	R	R	R	R	R	R	Sr5+11+13+
31	HD3165	S	S	S	R	S	R	R	MR	S	MS	MS	S	R	R	R	MS	MS	R	MS	Sr2+7b+	
32	HD3174	S	S	S	R	R	MS	R	MR		MR	S	R	R	R	R	R	MR	R	S	Sr2+7b+	
33	HI1604	R	R	R	R	R	R	R	R	R	R	R	MR	MR	R	R	R	R	R	R	R	Sr11+
34	HI1605	MS	R	R	R	R	R	R	R	R	R	R	MS	R	R	R	R	R	R	R	R	Sr5+11+
35	HUW688	MS	R	R	R	R	R	R	MS	R	R	MR	R	R	R	MR	R	R	S	R	Sr5+11+	
36	K1312	R	R	R	R	R	R	R	MS	R	R	R	R	R	R	R	R	R	S	R	Sr5+11+	
37	K1313	R	R	R	R	R	R	R	R	R	S	R	R	R	R	R	R	R	R	R	R	Sr2+5+30+
38	K1314	R	R	S	R	R	R	R	MR	R	MS	R	R	R	R	R	R	R	R	R	R	Sr2+5+7b+
39	MACS3949	R	R	MR	R	R	MS	R	R	R	MS	R	R	MS	MR	R	S	S	R	R	Sr2+7b+	
40	MACS4024	MR	R	R	R	R	S	R	R	R	MR	R	MR	S	S	S	S	S	R	R	Sr2+11+	
41	NW6024																				-	
42	PBW707	MS	R	R	R	R	R	R	R	R	MR	R	MR	R	R	R	R	R	R	R	R	Sr9b+11+
43	PBW709	MS	MS	R	R	R	R	R	R	R	MR	MR	R	R	R	R	R	R	R	R	R	Sr9b+11+
44	PBW716	R	R	S	R	R	MS	R	S	R	S	R	MR	R	R	R	R	R	MS	R	Sr2+7b+	
45	PBW718	R	R	R	R	R	R	R	R	R	R	R	S	R	R	R	R	R	S	R	Sr9e+	
46	PBW719	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr31+
47	UP2883	MS	R	R	R	R	R	R	R	R	R	R	MS	R	R	R	R	R	R	R	R	Sr11+
48	WH1179	R	R	S	R	R	R	R	R	S	S	MS	MR	R	R	R	R	R	R	S	Sr7b+	
North Eastern Plain Zone																						
49	HD3171	R	R	MS	R	R	MR	R	MS	R	R	R	MS	R	R	MR	R	R	R	MR	Sr7b+	
50	K1317	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Sr2+31+
Central Zone																						
51	CG1015	MS	MS	R	R	R	R	R	MS	R	MR	R	MR	R	R	R	R	R	R	R	R	Sr2+5+7b+
52	GW463	MS	R	R	R	R	MR	R	R	R	MR	R	R	R	R	R	R	R	R	R	R	Sr2+11+
53	HI8759 (D)	MS	R	R	R	R	S	R	R	R	R	MS	MS	R	R	R	S	MS	MS	MR	Sr2+11+	
Peninsular Zone																						
54	GW1315(D)	R	R	R	R	R	MS	R	MR	R	R	R	S	R	R	R	S	R	R	R	Sr7b+11+	
55	HD3164	S	R	S	R	R	R	R	R	S	S	R	MR	R	R	R	R	R	S	MS	Sr7b+	
56	HI8765 (D)	R	R	R	R	R	MS	R	R	R	R	R	MR	MR	R	R	MS	S	R	MS	Sr9b+11+	

