Annexure 1: Seedling Resistance Test of AVT II against pathotypes of brown rust (*Puccinia triticina*) at Shimla during 2014-2015

S. No.	VARIETY	PATHOTYPES																												Gene postulation
		11	12	12-2	12-3	12-5	12-7	12-9	16-1	77	77-1	77-2	77-5	77-7	77-8	77-9	77-10	77-12	77A-1	104-2	104-3	104-4	104B	106	107-1	108-1	162-1	162-3	162A	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Northern Hills Zone																														
1	HS562	R	R	S	R	R	S	R	R	R	R	S	S	S	R	R	S	R	R	S	S	S	R	R	R	R	R	R	R	*Lr*23+
2	HPW251 (C)	R	R	R	R	R	S	R	R	R	R	R	S	S	R	S	S	S	R	R	R	R	R	R	R	R	R	R	R	*Lr*23+26+
3	HPW349 (C)	R	R	R	R	MS	S	R	R	R	R	R	S	S	R	R	S	R	R	S	MS	R	S	R	R	R	R	R	R	*Lr*10+13+
4	HS375 (C)	R	R	R	R	R	R	R	R	R	S	R	MS	S	R	R	S	R	R	R	R	R	R	R	R	R	R	R	R	*Lr*1+26+34+
5	HS490 (C)	R	R	R	R	S	S	S	R	R	R	S	R	R	S	S	S	R	R	S	S	S	R	R	R	S	R	R	R	*Lr*23+
6	HS507 (C)	R	R	R	R	R	R	R	R	R	R	R	R	S	R	S	R	R	R	R	R	S	R	R	R	R	R	R	R	*Lr*1+26++
7	HS542 (C)	R	R	S	R	R	R	MS	R	R	S	R	M	MS	R	R	S	-	-	S	R	R	S	R	R	R	R	R	R	*Lr*10+13+
8	VL804 (C)	R	R	R	R	R	MS	S	R	R	R	R	S	S	R	S	S	R	R	S	S	R	R	R	R	R	R	R	R	*Lr*26+34+
9	VL829 (C)	R	R	R	R	R	R	S	R	R	R	R	S	S	R	R	S	R	R	S	S	R	R	R	R	R	R	R	R	*Lr*26+34+
10	VL892 (C)	R	MS	R	R	R	R	S	R	R	R	MS	R	S	R	S	S	R	R	S	R	MS	R	R	R	R	R	R	R	*Lr*10+13+
11	VL907 (C)	R	R	R	R	R	MS	R	R	R	R	R	R	R	R	R	MS	R	R	R	R	MS	S	R	R	R	R	R	R	*Lr*26+
North Western Plain Zone																														
12	HD4730	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	R	R
13	MP1277	R	R	S	R	R	S	S	R	S	R	S	R	S	R	R	S	S	R	S	S	S	S	R	R	R	R	R	R	*Lr*13+
14	WH1164	R	R	R	R	R	MX	R	R	R	S	S	M	S	MS	R	S	R	R	S	R	S	S	R	R	-	R	R	R	*Lr*10+13+
15	DBW88 (C)	R	R	R	R	R	R	S	R	R	S	S	S	R	R	R	S	R	R	R	R	R	R	R	R	R	R	R	R	*Lr*3+10+13+
16	DBW90 (C)	R	R	S	R	R	S	S	R	R	S	S	S	S	R	R	S	MS	R	S	S	R	R	R	R	R	R	R	S	*Lr*3+10+13+
17	PBW621-50 (C)	R	R	R	R	R	S	S	R	R	S	S	R	S	S	R	S	M	R	R	R	R	R	R	R	R	R	R	R	*Lr*10+13+
18	HD2967 (C)	R	R	R	R	R	R	S	R	R	-	R	S	R	R	R	S	R	R	R	R	R	R	R	R	R	R	R	R	*Lr*23+
19	HD3043	R	R	R	R	R	R	S	R	R	S	R	S	S	R	S	S	R	R	S	S	S	R	R	R	R	R	R	R	*Lr*23+
20	HD3059 (C)	R	R	R	R	R	R	R	R	R	MS	R	MS	S	S	S	S	R	R	R	R	R	R	R	R	R	S	R	R	*Lr*13+*
21	HD3086 (C)	R	R	S	R	R	S	S	R	R	S	S	S	S	R	M	S	S	R	S	S	S	S	R	R	R	R	R	S	*Lr*3+10+13+
22	PBW 644 (C)	R	R	R	R	R	R	R	R	R	R	S	MS	S	R	R	S	R	R	S	S	S	R	R	R	MS	R	R	R	*Lr*1+13+
23	PDW233 (C)	R	R	R	R	S	S	R	S	R	MS	R	S	R	R	S	R	S	R	S	S	S	MS	R	R	R	R	R	R	*Lr*23+
24	PDW291 (C)	-	R	R	R	R	R	R	S	R	R	MS	R	R	R	R	R	R	R	R	R	R	M	R	-	R	R	R	R	*Lr*23+
25	PDW314 (C)	R	R	R	R	R	S	R	R	R	R	R	S	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	*Lr*23+
26	WH1021 (C)	R	R	R	R	R	R	R	R	R	S	R	MS	S	R	R	M	R	R	R	R	S	R	R	R	R	R	R	R	*Lr*1+26+
27	WH1080 (C)	R	MS	S	R	S	S	R	R	R	S	S	S	S	R	S	S	S	S	S	S	S	R	R	R	R	R	R	S	*Lr*13+
28	WH1105 (C)	R	R	R	R	R	R	S	R	R	MS	R	R	S	R	R	S	S	S	R	R	R	R	R	R	R	R	R	R	*Lr*13+
29	WH1124 (C)	R	R	S	R	R	R	S	R	R	S	S	S	S	R	S	S	S	R	S	S	R	S	R	R	R	R	R	S	*Lr*10+13+

S. No.	VARIETY	PATHOTYPES																												Gene postulation
		11	12	12-2	12-3	12-5	12-7	12-9	16-1	77	77-1	77-2	77-5	77-7	77-8	77-9	77-10	77-12	77A-1	104-2	104-3	104-4	104B	106	107-1	108-1	162-1	162-3	162A	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
30	WH1142 (C)	R	R	R	R	R	S	R	R	R	R	R	S	S	R	R	S	R	R	S	S	S	R	R	R	R	R	R	R	*Lr*26+26+
North Eastern Plain Zone																														
31	C306 (C)	R	R	S	R	S	S	R	-	R	R	R	R	R	R	R	R	R	R	S	S	S	S	R	R	R	R	R	S	*Lr*34+
32	HD2888 (C)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	S	R	R	R	R	R	R	R	*Lr*24+
33	K8027 (C)	R	S	S	R	S	S	S	S	R	-	S	S	S	R	R	S	S	S	S	S	S	S	S	S	R	S	S	S	*Lr*13+
Central Zone																														
34	HD4728 (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	R	R
35	HD4730 (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	MS	R	R	R
36	GW322 (C)	R	R	R	R	R	R	R	R	R	MS	S	M	S	R	R	S	R	S	R	R	S	R	R	R	R	R	R	R	*Lr*13+
37	HD2864 (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	R	R
38	HD2932 (C)	R	S	S	R	S	S	R	R	S	S	S	S	S	R	S	S	R	S	S	S	S	S	R	S	MS	S	S	R	*Lr*13+
39	HI1544 (C)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	MS	R	R	R	R	R	R	*Lr*24+
40	HI8498 (D) (C)	R	R	R	MS	R	MS	R	S	R	R	R	MS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	*Lr*23+
41	HI8737 (D) (C)	R	R	MS	R	MS	R	R	S	R	R	R	S	R	R	R	R	R	R	S	R	S	R	R	R	R	R	R	R	*Lr*23+
42	MP3336 (C)	R	S	S	R	S	S	R	R	R	R	S	S	S	R	S	S	S	S	S	S	S	S	R	R	R	R	S	MS	*Lr*13+
43	MP4010 (C)	R	R	R	R	R	R	R	R	R	R	R	S	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	*Lr*24+
44	MPO1215 (D) (C)	R	R	-	R	S	R	-	S	R	-	R	MS	R	R	R	S	-	R	-	R	R	S	R	R	-	R	R	-	*Lr*23+
Peninsular Zone																														
45	MACS3927 (D)	R	S	S	R	S	S	S	S	R	R	R	S	R	R	S	S	R	R	S	S	S	S	S	R	R	R	S	S	-
46	NIAW2030	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	S	R	R	R	R	R	R	*Lr*24+
47	AKDW2997 -16 (D) (C)	R	R	R	R	R	R	R	R	R	R	M	MS	R	R	R	R	R	R	R	S	MS	R	R	R	R	R	S	R	-
48	DBW93 (D) (C)	R	R	R	R	R	R	R	R	R	R	R	MS	R	R	R	R	R	R	S	MS	S	R	R	R	R	R	R	R	*Lr*123+26+
49	MACS6222 (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	R	*Lr*1+26+
50	MACS6478 (C)	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	S	R	R	MS	R	R	R	R	R	R	R	R	R	*Lr*1+23+
51	NI5439 (C)	R	S	S	S	R	S	MS	R	R	MS	R	R	R	R	R	MX	S	R	S	S	S	S	R	R	R	R	R	S	*Lr*34+
52	NIAW1415(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	R	*Lr*26+
53	UAS347 (I) (C)	R	R	S	R	MS	R	S	R	R	S	R	S	R	R	R	S	R	R	S	S	S	S	R	R	R	S	R	R	*Lr*10+13+
54	UAS428 (D) (C)	R	R	S	R	S	R	R	S	R	R	R	S	R	R	R	R	R	R	S	S	S	S	R	R	R	R	R	R	*Lr*23+
55	UAS446 (D) (I) (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	R	R
Special trial																														
56	HD2932+*Lr*19/*Sr* 25	R	R	R	R	R	R	R	R	R	R	R	R	R	S	R	R	R	R	R	R	R	R	R	R	R	R	R	R	*Lr*19+
57	MMBL283	R	S	S	R	S	S	R	R	S	S	S	S	S	S	S	S	S	S	S	S	S	S	R	R	MS	R	S	R	-
58	PBW723	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	R	R

S. No.	VARIETY	PATHOTYPES																												Gene postulation
		11	12	12-2	12-3	12-5	12-7	12-9	16-1	77	77-1	77-2	77-5	77-7	77-8	77-9	77-10	77-12	77A-1	104-2	104-3	104-4	104B	106	107-1	108-1	162-1	162-3	162A	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
59	DBW14 (C)	R	R	S	R	R	R	R	R	R	R	R	S	R	R	R	S	R	R	R	R	S	S	R	R	R	R	R	R	*Lr*23+
60	DDK1029 (C)	R	R	R	R	R	R	R	S	R	R	R	R	R	R	S	R	R	R	S	R	R	R	S	R	R	S	R	R	*Lr*13+
61	HD2985 (C)	R	R	S	R	R	S	R	R	R	S	S	S	S	R	M	S	R	R	S	S	S	R	S	R	R	R	R	R	*Lr*23+
62	HI1563 (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	R	R
63	HUW234 (C)	R	R	S	R	MS	R	S	R	R	R	S	S	S	S	M	S	S	S	S	S	R	S	R	M	R	R	S	S	*Lr*14a+
64	HW1098 (C)	S	R	R	R	R	R	MS	S	R	R	R	S	S	R	S	R	R	R	S	R	S	M	S	R	R	S	R	R	-
65	K0307 (C)	R	R	R	R	R	R	R	R	R	R	S	S	S	R	R	S	R	R	R	R	S	R	R	R	R	R	R	R	*Lr*1+23+
66	KARCHIA65 (C)	S	S	S	R	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	-
67	KRL19 (C)	R	R	S	R	S	R	R	R	R	S	S	S	S	R	R	S	S	S	R	R	S	R	R	R	R	R	R	S	*Lr*13+
68	KRL210 (C)	R	R	S	R	R	R	S	R	R	S	S	S	S	R	R	S	S	R	S	S	R	S	R	R	R	R	R	S	*Lr*10+13+
69	PBW343 (C)	R	R	R	R	R	R	R	R	R	R	R	MS	S	R	R	R	R	R	S	S	R	R	R	R	R	R	R	R	*Lr26*+
70	RAJ4083 (C)	R	R	R	R	R	S	S	R	R	R	S	S	S	S	R	S	S	R	S	S	R	S	R	R	R	R	R	R	*Lr*23+
71	TL2942 (C)	R	R	R	R	R	R	R	R	R	R	R	S	S	R	S	R	R	S	S	R	R	R	R	R	R	R	R	R	*Lr*10+13+
72	TL2969 (C)	R	R	R	R	R	R	R	R	R	R	R	S	R	R	R	R	R	R	MS	R	R	R	R	R	R	R	R	R	*Lr*23+
73	WH542 (C)	-	-	R	-	R	S	S	R	R	S	R	S	S	R	M	MS	R	R	S	R	S	R	R	R	R	R	R	R	*Lr*23+26+ 34+