

**APR response of AVT II<sup>nd</sup> and Ist year entries to individual races of *Puccinia striiformis tritici*.**

Sr. No.	Variety	46 S 119		78 S 84	
		Ludhiana	Delhi	Ludhiana	Delhi
<b>AVT II<sup>nd</sup> Year</b>					
<b>I. NORTHERN HILL ZONE</b>					
1	HS 562	10S	10S	5S	TR
2	HPW 251 (C)	40S	TR	80S	TR
3	HPW 349 (C)	20S	TR	20S	10MS
4	HS 375 (C)	40S	20S	60S	40S
5	HS 490 (C)	20MS	5MR	60S	TR
6	HS 507 (C)	5S	0	10S	TR
7	HS 542 (C)	0	0	40S	5MR
8	VL 804 (C)	40MS	0	60S	0
9	VL 829 (C)	40S	0	60S	10MR
10	VL 892 (C)	20S	0	80S	0
11	VL 907 (C)	5S	0	20S	0
<b>II. NORTH WESTERN PLAIN ZONE</b>					
12	HD 4730	10S	5MR	TR	0
13	MP 1277	10S	0	5S	0
14	WH 1164	10S	0	TR	0
15	DBW 88 (C)	40S	0	60S	0
16	DBW 90 (C)	10S	0	10S	10S
17	DPW 621-50 (C)	40S	0	40S	5MR
18	HD 2967 (C)	60S	0	60S	TR
19	HD 3043 (C)	10S	0	20S	0
20	HD 3059 (C)	20S	0	60S	0
20. A	INFECTOR	80S	100S	80S	100S
21	HD 3086 (C)	10S	5MR	5S	TR
22	PBW 644 (C)	10S	0	40S	20S
23	PDW 233 (C)	10S	20S	5S	0
24	PDW 291 (C)	10S	30MS	5S	TR
25	PDW 314 (C)	5S	0	TS	TR
26	WH 1021 (C)	60S	TR	60S	TR
27	WH 1080 (C)	20S	0	TS	10MS
28	WH 1105 (C)	5S	0	40S	5MR
29	WH 1124 (C)	10S	0	40S	TR
30	WH 1142 (I) C)	20S	0	10S	5MR
<b>III. NORTH EASTERN PLAIN ZONE</b>					
31	C 306 (C)	60S	0	60S	5MR
32	HD 2888 (C)	40S	0	60S	0
33	K 8027 (C)	60S	0	60S	0
<b>IV. CENTRAL ZONE</b>					
34	HD 4728 (d)	5S	TR	0	0
35	HD 4730 (d)	10S	-	-	-
36	GW 322 (C)	60S	80S	60S	60S

Sr. No.	Variety	46 S 119		78 S 84	
		Ludhiana	Delhi	Ludhiana	Delhi
37	HD 2864 (C)	40S	0	60S	60S
38	HD 2932 (C)	40S	0	60S	60S
39	HI 1544 (C)	60S	TR	60S	40S
40	HI 8498 (D) (C)	10S	TR	0	5S
40. A	INFECTOR	80S	100S	60S	100S
41	HI 8737 (D)(I) (C)	40S	0	5MR	5MR
42	MP 3336 (C)	40S	TR	40S	40S
43	MP 4010 (C)	60S	0	40S	20S
44	MPO 1215 (d) (C)	40S	0	0	0
<b>V. PENINSULAR ZONE</b>					
45	MACS 3927 (d)	5S	0	0	5MR
46	NIAW 2030	80S	60S	80S	60S
47	AKDW 2997-16(d) (C)	10S	TR	0	20S
48	DBW 93 (I) (C)	60S	80S	60S	40S
49	MACS 6222 (C)	60S	20MS	10S	30S
50	MACS 6478 (C)	40S	TR	60S	40S
51	NI 5439 (C)	80S	60S	80S	80S
52	NIAW 1415 (C)	80S	60S	80S	80S
53	UAS 347 (I) (C)	20S	80S	10MS	40S
54	UAS 428 (d) (C)	10S	10S	0	20MS
55	UAS 446 (d) (I) (C)	10S	5MR	0	5MS
<b>VII. SPECIAL TRIAL</b>					
56	(HD 2932 + Lr 19/Sr 25)	60S	40S	60S	60S
57	MMBL 283	40MS	20S	60S	60S
58	PBW 723	20MS	TR	20S	5S
59	DBW 14 (C)	20MS	TR	60S	0
60	DDK 1029 (C)	40S	20S	40S	40S
60. A	INFECTOR	80S	100S	80S	100S
61	HD 2985 (C)	40S	0	60S	0
62	HI 1563 (C)	40S	5MR	60S	20S
63	HUW 234 (C)	40S	20MS	60S	40S
64	HW 1098 (C)	40S	10S	40S	40MS
65	K 0307 (C)	40S	0	60S	0
66	Kharchia 65 (C)	80S	80S	80S	40S
67	KRL 19 (C)	40S	40S	60S	40S
68	KRL 210 (C)	10S	5MS	0	20S
69	PBW 343 (C)	-	-	80S	60S
70	Raj 4083 (C)	10MS	10MS	40S	20MS
71	TL 2942 (C)	0	0	5MR	TR
72	TL 2969 (C)	10S	0	5MR	0
73	WH 542 (C)	40S	0	80S	0
73. A	INFECTOR	60S	100S	80S	100S
AVT Ist					
<b>I. NORTHERN HILL ZONE</b>					

Sr. No.	Variety	46 S 119		78 S 84	
		Ludhiana	Delhi	Ludhiana	Delhi
1	HPW 393	10S	0	40MS	0
2	HPW 394	0	0	0	0
3	HPW 413	10S	0	TS	0
4	HPW 421	10S	0	0	0
5	HPW 422	0	0	10S	0
6	HS 580	5S	0	10S	0
7	HS 583	10S	0	5S	10S
8	HS 590	5S	0	60S	30S
9	HS 596	0	0	0	0
10	HS 597	0	0	5S	0
11	HS 598	20S	0	0	20S
12	HS 599	0	0	0	0
13	HS 600	5S	0	40S	0
14	HS 601	5S	0	10S	0
15	UP 2917	20S	0	60S	0
16	UP 2918	5S	0	60S	10S
17	VL 1005	20S	0	60S	0
18	VL 1006	10S	5MR	0	0
19	VL 1007	5S	10S	0	0
20	VL 3002	0	0	10S	0
20. A	INFECTOR	80S	100S	80S	100S
21	VL 3007	5S	0	10MS	0
22	VL 3008	20MS	0	10S	0
23	VL 3009	10S	0	0	0
24	VL 4001	40S	0	60S	0
<b>II. NORTH WESTERN PLAIN ZONE</b>					
25	DBW 147	10S	0	0	0
26	DBW 148	5S	0	10S	10MR
27	DBW 150	40S	TR	60S	0
28	DDW 31	10S	0	0	5MR
29	DDW 32	10S	0	0	10MR
30	HD 3159	5S	5MR	10S	0
31	HD 3165	10S	0	0	0
32	HD 3174	10S	0	10S	TR
33	HI 1604	5S	0	10S	0
34	HI 1605	10S	0	40S	0
35	HUW 688	20S	0	60S	0
36	K 1312	40S	0	20S	0
37	K 1313	20S	0	60S	0
38	K 1314	5S	TR	5MS	0
39	MACS 3949	5S	0	0	30S
40	MACS 4024	5S	0	0	TR
40. A	INFECTOR	80S	100S	60S	100S
41	NW 6024	-	-	-	-

Sr. No.	Variety	46 S 119		78 S 84	
		Ludhiana	Delhi	Ludhiana	Delhi
42	PBW 707	5S	0	0	0
43	PBW 709	20S	0	40S	0
44	PBW 716	60S	0	60S	0
45	PBW 718	20S	0	0	0
46	PBW 719	5S	0	60S	0
47	UP 2883	20MS	0	60S	5MS
48	WH 1179	10S	30MS	40S	0
<b>III. NORTH EASTERN PLAIN ZONE</b>					
49	HD 3171	40S	10MR	40S	0
50	K 1317	20S	0	40S	0
<b>IV. CENTRAL ZONE</b>					
51	CG 1015	40MS	10MR	60S	40MS
52	GW 463	60S	0	60S	10S
53	HI 8759 (d)	10S	0	0	50S
<b>V. PENINSULAR ZONE</b>					
54	GW 1315 (d)	80S	80S	80S	80S
55	HD 3164	40MS	0	20MS	30S
56	HI 8765 (d)	10S	TR	0	40S
57	JWS 712	60S	40S	10MS	0
58	K 1315	40S	0	60S	40S
59	MACS 3970 (d)	5S	TR	0	0
60	MACS 3972 (d)	40S	0	0	60S
60. A	INFECTOR	80S	100S	80S	100S
61	MACS 4020 (d)	20S	0	0	0
62	PBW 721	10S	0	5MS	0
63	UAS 360	20S	20MS	80S	30MS
64	UAS 361	60S	0	40S	0
65	UAS 453 (d)	10S	0	0	0
66	UAS 455 (d)	0	0	0	0
<b>VI. SPECIAL TRIAL (Dicoccum and Sailinity and Alkalinity)</b>					
67	DBW 181	5S	0	40S	0
68	DBW 182	40S	0	60S	0
69	DBW 183	10S	0	0	0
70	DBW 184	0	0	0	0
71	DBW 185	40S	0	40S	0
72	DDK 1048	40MS	5MR	20MS	60S
73	DDK 1049	40S	TS	10MS	80S
74	KRL 350	5S	0	10S	30MS
75	KRL 351	5S	TR	0	10MR
76	MACS 5041	40MS	0	20MS	80S
77	MACS 5043	60MS	0	20MS	80S
78	WH 1309	10MS	5MR	0	10MR
<b>VII. SPECIAL TRIAL (TRITICALE)</b>					
79	TL 3001	0	0	5MR	0

Sr. No.	Variety	46 S 119		78 S 84	
		Ludhiana	Delhi	Ludhiana	Delhi
80	TL 3002	TR	0	5MR	0
80. A	INFECTOR	80S	100S	80S	100S
81	TL 3003	10S	0	5MR	0
82	TL 3004	TR	0	5MR	0
83	TL 3005	0	5MR	5MR	0
<b>VIII. SPECIAL TRIAL (MABB/NIL (KB) ENTRIES)</b>					
84	DWR-NIL-01	80S	0	80S	10S
85	DWR-NIL-02	60S	0	60S	0
86	HD 3209	60S	0	60S	0
87	KB 2012-03	60S	10MS	60S	0
<b>IX. SPECIAL TRIAL (Wheat Biofortification)</b>					
88	HPBW 01	40S	0	40S	0
89	HPBW 02	40S	0	40S	10MS
90	HPBW 05	40S	0	40S	40S
91	HPBW 07	0	0	10MS	0
92	HPBW 08	10S	0	10MS	10S
93	HPBW 09	20S	0	40S	0
94	HUW 695	40S	0	40S	0
95	HUW 711	40S	0	40S	5S
96	HUW 712	20S	0	40S	0
97	MACS 6507	40S	0	40S	0
98	WB 1	40S	20MR	40S	0
99	WB 2	20S	0	40S	0
100	WB 5	10S	0	5MR	5MR
100. A	INFECTOR	80S	100S	80S	100S

**APR response of AVT IInd and Ist year entries to individual races of *Puccinia graminis tritici*.**

Sr. No.	Variety	40A			117-6	
		Indore	Pune	Powerkheda	Indore	Pune
<b>AVT II<sup>nd</sup> Year</b>						
<b>I. NORTHERN HILL ZONE</b>						
1	HS 562	50X	30MSS	5MS	30MRMS	20MS
2	HPW 251 (C)	5R	10MR	TR	5R	5MR
3	HPW 349 (C)	40MSS	20S	0	10RMR	20MS
4	HS 375 (C)	5RMR	20MS	10MS	0	10MR
5	HS 490 (C)	TR	5MR	15MS	10MR	5MR
6	HS 507 (C)	5R	10MR	TR	TR	5MR
7	HS 542 (C)	TR	5MR	TR	TS	TR
8	VL 804 (C)	5RMR	5MR	20MS	5R	5MR
9	VL 829 (C)	0	10MR	TR	TR	TR
10	VL 892 (C)	5R	20MR	10MS	0	5MR
11	VL 907 (C)	0	10MR	10MS	TR	5MR
<b>II. NORTH WESTERN PLAIN ZONE</b>						
12	HD 4730	TMR	20MR	5MR	10MSS	20MS
13	MP 1277	60MSS	10MS	0	40MRMS	20S
14	WH 1164	5MR	5MR	TR	20MRMS	5MR
15	DBW 88 (C)	TS	10MR	10MR	5R	5MR
16	DBW 90 (C)	50X	20MS	TR	30MRMS	10MR
17	DPW 621-50 (C)	20RMR	10MS	15MS	5MR	5MR
18	HD 2967 (C)	20MSS	20MR	10MR	10MRMS	10MR
19	HD 3043 (C)	20R	20MS	20MS	5R	30MS
20	HD 3059 (C)	10MR	20MS	TR	TR	10MR
20. A	INFECTOR	100S	90S	70S	100S	80S
21	HD 3086 (C)	40MSS	40S	15MR	60MSS	20MR
22	PBW 644 (C)	20MRMS	10MR	TR	20MSS	5MR
23	PDW 233 (C)	20RMR	20MS	TR	10MSS	20S
24	PDW 291 (C)	20MR	20MR	TR	15MSS	30MS
25	PDW 314 (C)	40MSS	30MSS	10MR	30MSS	30S
26	WH 1021 (C)	10R	10MR	10MS	20RMR	20MR
27	WH 1080 (C)	30MRMS	20MR	5MR	30MR	20MR
28	WH 1105 (C)	40MRMS	20MS	TR	30MR	20S
29	WH 1124 (C)	30X	30S	TR	30MR	20MR
30	WH 1142 (I) C)	20X	10MR	5MS	20MRMS	5MR
<b>III. NORTH EASTERN PLAIN ZONE</b>						
31	C 306 (C)	20S	40S	40MS	5RMR	30S
32	HD 2888 (C)	5MR	10MR	10MS	TR	10MR
33	K 8027 (C)	50S	30MS	20MS	5S	20S
<b>IV. CENTRAL ZONE</b>						
34	HD 4728 (d)	10RMR	20MRMS	5MS	5S	20S
35	HI 4730 (d)	10RMR	10MR	TR	10MSS	30MS
36	GW 322 (C)	10RMR	10MR	10MS	10MRMS	10MR
37	HD 2864 (C)	10R	10MR	TR	TR	5MR
38	HD 2932 (C)	40MSS	20MS	10MR	10RMR	10MR
39	HI 1544 (C)	TR	20MR	TR	TR	5MR
40	HI 8498 (D) (C)	30X	10MR	TR	20X	20MS
40. A	INFECTOR	100S	80S	70S	100S	80S
41	HI 8737 (D)(I) (C)	30X	30S	0	30MRMS	20MR
42	MP 3336 (C)	10RMR	10MR	TR	10RMR	5MR

Sr. No.	Variety	40A			117-6	
		Indore	Pune	Powerkheda	Indore	Pune
43	MP 4010 (C)	10R	5MR	10MR	10R	5MR
44	MPO 1215 (d) (C)	30X	10MR	0	20MRMS	30S
<b>V. PENINSULAR ZONE</b>						
45	MACS 3927 (d)	30X	10MR	TR	20MRMS	30MSS
46	NIAW 2030	5R	10MR	0	10R	5MR
47	AKDW 2997-16(d) (C)	10MRMS	20MR	TR	20MRMS	30S
48	DBW 93 (I) (C)	5MR	10MR	0	10R	5MR
49	MACS 6222 (C)	5RMR	5MR	TR	10R	5MR
50	MACS 6478 (C)	30X	30MS	R	20MSS	5MR
51	NI 5439 (C)	40MSS	30MS	10MR	30MSS	40S
52	NIAW 1415 (C)	10R	20MR	0	5R	5MR
53	UAS 347 (I) (C)	30RMR	30S	10MR	20MRMS	20MR
54	UAS 428 (d) (C)	30RMR	20MR	TR	5R	30S
55	UAS 446 (d) (I) (C)	20RMR	20MR	10MS	5S	20S
<b>VII. SPECIAL TRIAL</b>						
56	(HD 2932 + Lr 19/Sr 25)	20R	10MR	0	10R	5MR
57	MMBL 283	40MSS	5MR	10MR	20MSS	5MR
58	PBW 723	0	5MR	5MR	5R	10MR
59	DBW 14 (C)	20MR	0	10MS	10MR	10MR
60	DDK 1029 (C)	20RMR	5MR	0	10R	10MR
60. A	INFECTOR	100S	80S	70S	100S	80S
61	HD 2985 (C)	30MR	40S	TR	20MSS	20MR
62	HI 1563 (C)	5R	5MR	0	10R	TR
63	HUW 234 (C)	50MSS	30S	15MS	60MSS	TR
64	HW 1098 (C)	10RMR	20MR	TR	20MRMS	0
65	K 0307 (C)	20MR	10MR	TR	10MR	5MR
66	Kharchia 65 (C)	60MSS	60S	5MR	60MSS	40S
67	KRL 19 (C)	30RMR	40MR	TR	30MR	20MR
68	KRL 210 (C)	40MSS	20S	15MS	30X	20MS
69	PBW 343 (C)	30RMR	20MR	TR	10MR	5MR
70	Raj 4083 (C)	20RMR	10MR	TR	5R	5MR
71	TL 2942 (C)	20MSS	0	0	0	0
72	TL 2969 (C)	20RMR	0	0	0	0
73	WH 542 (C)	5MR	5MR	10MS	TR	0
73. A	INFECTOR	100S	80S	80S	100S	80S
AVT Ist						
<b>I. NORTHERN HILL ZONE</b>						
1	HPW 393	80MSS	20MSS	10MR	80MSS	10MR
2	HPW 394	60MSS	0	0	10MSS	5MR
3	HPW 413	40MSS	30S	0	40MSS	10MR
4	HPW 421	30RMR	5MR	10MR	20RMR	5MR
5	HPW 422	10RMR	10MR	10MS	10R	TR
6	HS 580	20R	5MR	0	10R	5MR
7	HS 583	60MSS	10MR	TR	30X	5MR
8	HS 590	40MSS	40MSS	0	40X	20MR
9	HS 596	5MSS	20MR	10MR	5MR	10MR
10	HS 597	50MSS	40MS	TR	10MRMS	20MR
11	HS 598	40MRMS	20MR	15MS	20MRMS	10MR
12	HS 599	40RMR	5MR	10MS	20RMR	TR
13	HS 600	50MSS	5MR	0	20RMR	TR
14	HS 601	60MSS	5MR	5MS	20RMR	0

Sr. No.	Variety	40A			117-6	
		Indore	Pune	Powerkheda	Indore	Pune
15	UP 2917	10R	20MS	0	20R	5MR
16	UP 2918	10R	20MS	10MR	20RMR	5MR
17	VL 1005	10RMR	10MR	10MS	5R	10MR
18	VL 1006	40MRMS	20MR	15MR	20MRMS	5MR
19	VL 1007	20R	20MR	0	10R	5MR
20	VL 3002	10R	20MR	0	10MRMS	5MR
20. A	INFECTOR	100S	90S	70S	100S	80S
21	VL 3007	10R	10MR	0	5R	TR
22	VL 3008	0	10MR	10MS	5R	5MR
23	VL 3009	30MSS	20S	TR	40X	5MR
24	VL 4001	0	5MR	0	TR	TR
<b>II. NORTH WESTERN PLAIN ZONE</b>						
25	DBW 147	30RMR	0	0	20RMR	TR
26	DBW 148	60MSS	20MR	0	60MSS	5MR
27	DBW 150	30MSS	30MS	0	30MSS	10MR
28	DDW 31	10MSS	20MR	10MR	30MSS	20S
29	DDW 32	30X	10MR	0	40X	20S
30	HD 3159	10R	20MR	0	10R	TR
31	HD 3165	40X	40MS	0	40X	10MR
32	HD 3174	30X	40MS	0	40MSS	5MR
33	HI 1604	10RMR	10MR	10MR	30X	TR
34	HI 1605	20RMR	20MR	0	10RMR	5MR
35	HUW 688	20RMR	40MSS	15MS	20MRMS	10MR
36	K 1312	10R	20MR	10MS	5RMR	20MR
37	K 1313	5R	10MR	5MR	5R	5MR
38	K 1314	40X	20MS	0	30MR	20MR
39	MACS 3949	20X	20MS	TR	40X	20MS
40	MACS 4024	10RMR	20MS	0	20MSS	20MR
40. A	INFECTOR	100S	90S	80S	100S	80S
41	NW 6024	-	-	-	-	-
42	PBW 707	30MRMS	20MR	10MR	20MR	10MR
43	PBW 709	10MR	10MR	TR	20MRMS	20MR
44	PBW 716	20MSS	5MR	10MS	30MRMS	5MR
45	PBW 718	20RMR	20MR	TR	20RMR	TR
46	PBW 719	TR	5MR	20MS	TR	20MR
47	UP 2883	TR	10MR	10MS	TMS	5MR
48	WH 1179	40MSS	20MS	10MS	20MSS	TR
<b>III. NORTH EASTERN PLAIN ZONE</b>						
49	HD 3171	30RMR	30MS	0	30X	20MR
50	K 1317	5R	20MR	10MS	5R	5MR
<b>IV. CENTRAL ZONE</b>						
51	CG 1015	60MSS	10MR	5MR	20X	TR
52	GW 463	20RMR	5MR	10MS	10RMR	5MR
53	HI 8759 (d)	10RMR	20MR	TR	10MR	20MSS
<b>V. PENINSULAR ZONE</b>						
54	GW 1315 (d)	TR	30MR	0	5S	20MS
55	HD 3164	30RMR	40MR	5MR	20MRMS	TR
56	HI 8765 (d)	20RMR	20MR	TR	5S	30MS
57	JWS 712	30RMR	30MR	15MS	10RMR	10MR
58	K 1315	30MSS	5MR	0	5RMR	20MR
59	MACS 3970 (d)	40X	10MR	TR	60MSS	20MS



Sr. No.	Variety	40A			117-6	
		Indore	Pune	Powerkheda	Indore	Pune
60	MACS 3972 (d)	5MR	20MR	0	15MSS	10MR
60. A	INFECTOR	100S	80S	70S	100S	80S
61	MACS 4020 (d)	5MR	10MR	10MR	5S	5MR
62	PBW 721	20MSS	10MR	TR	30MRMS	10MR
63	UAS 360	20RMR	5MR	15MS	30MRMS	5MR
64	UAS 361	20RMR	5MR	10MR	10RMR	TR
65	UAS 453 (d)	20X	10MR	10MR	20MRMS	20MS
66	UAS 455 (d)	20RMR	10MR	TR	5MSS	20MS
<b>VI. SPECIAL TRIAL (Dicoccum and Sailinity and Alkalinity)</b>						
67	DBW 181	20MRMS	5MR	15MS	20MRMS	5MR
68	DBW 182	5MR	10MR	TR	10MR	TR
69	DBW 183	30X	5MR	0	20MRMS	0
70	DBW 184	10RMR	30MR	10MS	TMR	0
71	DBW 185	20RMR	10MR	TR	10MR	0
72	DDK 1048	10R	5MR	TR	10MR	0
73	DDK 1049	10RMR	20MR	0	10RMR	0
74	KRL 350	30RMR	5MR	10MR	10R	0
75	KRL 351	30X	5MR	0	10MR	TR
76	MACS 5041	10R	5MR	TR	10MRMS	0
77	MACS 5043	20RMR	10MR	10MR	10RMR	TR
78	WH 1309	60MSS	20MR	5MR	10MRMS	0
<b>VII. SPECIAL TRIAL (TRITICALE)</b>						
79	TL 3001	60MSS	5MR	0	5MRMS	0
80	TL 3002	5R	0	TR	0	0
80. A	INFECTOR	100S	90S	80S	100S	80S
81	TL 3003	0	TR	TR	TR	0
82	TL 3004	20MSS	5MR	0	TR	0
83	TL 3005	30MSS	TR	0	TMR	0
<b>VIII. SPECIAL TRIAL (MABB/NIL (KB) ENTRIES)</b>						
84	DWR-NIL-01	20R	40MR	10MS	20R	20MR
85	DWR-NIL-02	5R	5MR	TR	TR	5MR
86	HD 3209	10R	10MR	10MR	10R	TR
87	KB 2012-03	20RMR	20MR	15MS	30MRMS	5MR
<b>IX. SPECIAL TRIAL (Wheat Biofortification)</b>						
88	HPBW 01	30X	20MR	TR	30MRMS	5MR
89	HPBW 02	30MSS	5MR	TR	20MRMS	TR
90	HPBW 05	40MSS	40MR	5MS	30MRMS	10MR
91	HPBW 07	20MRMS	10MR	TR	5R	5MR
92	HPBW 08	40X	20MR	TR	5MR	5MR
93	HPBW 09	0	5MR	10MR	0	5MR
94	HUW 695	30X	30MR	0	20RMR	10MR
95	HUW 711	50MSS	10MR	10MS	30MRMS	TR
96	HUW 712	50MSS	5MR	5MS	20MRMS	0
97	MACS 6507	10R	10MR	10MR	10R	5MR
98	WB 1	40MSS	20MR	10MR	20MR	5MR
99	WB 2	50MSS	10MR	15MS	10MR	5MR
100	WB 5	20RMR	20MR	10MS	5R	10MR
100. A	INFECTOR	100S	90S	60S	100S	80S

APR response of AVT IInd and Ist year entries to individual races of Puccinia triticina.						
Sr. No.	Variety	77-5			104-2	
		Ludhiana	Delhi	Powerkheda	Ludhiana	Delhi
<b>AVT II<sup>nd</sup> Year</b>						
<b>I. NORTHERN HILL ZONE</b>						
1	HS 562	20S	TR	10MS	5MS	20MR
2	HPW 251 (C)	0	TR	10MR	0	10MS
3	HPW 349 (C)	0	TR	TR	0	TR
4	HS 375 (C)	0	TR	10MS	5MS	10MR
5	HS 490 (C)	0	0	10MS	0	TMR
6	HS 507 (C)	0	5R	15MR	0	TR
7	HS 542 (C)	0	0	10MR	0	0
8	VL 804 (C)	0	30S	15MS	10S	40S
9	VL 829 (C)	0	TMR	0	10S	5R
10	VL 892 (C)	0	TR	10MS	0	TR
11	VL 907 (C)	0	TR	15MR	0	TR
<b>II. NORTH WESTERN PLAIN ZONE</b>						
12	HD 4730	0	10R	10MR	0	10R
13	MP 1277	0	TR	0	0	5R
14	WH 1164	0	5R	R	0	TR
15	DBW 88 (C)	0	0	10MR	0	0
16	DBW 90 (C)	20S	10MR	10MS	0	10MR
17	DPW 621-50 (C)	0	TR	10MR	0	0
18	HD 2967 (C)	0	5R	10MS	0	5R
19	HD 3043 (C)	0	TR	15MR	0	TR
20	HD 3059 (C)	0	TR	10MS	0	TMR
20. A	INFECTOR	60S	70S	80S	40S	80S
21	HD 3086 (C)	40S	TR	10MR	0	5MR
22	PBW 644 (C)	0	TR	15MS	0	TR
23	PDW 233 (C)	0	20R	15MS	0	10RMR
24	PDW 291 (C)	0	20RMR	20MS	0	20R
25	PDW 314 (C)	0	30MR	TR	0	5R
26	WH 1021 (C)	0	TR	15MR	0	TR
27	WH 1080 (C)	0	10MS	10MS	0	20MR
28	WH 1105 (C)	5S	10MS	10MS	0	TR
29	WH 1124 (C)	10S	10MRR	5MS	0	TR
30	WH 1142 (I) C)	20S	10MRMS	10MR	0	TR
<b>III. NORTH EASTERN PLAIN ZONE</b>						
31	C 306 (C)	40S	40S	40MS	40S	40MSS
32	HD 2888 (C)	0	TR	15MS	0	TR
33	K 8027 (C)	80S	40MSS	30MS	60S	30MSS
<b>IV. CENTRAL ZONE</b>						
34	HD 4728 (d)	0	5R	TR	0	TR
35	HI 4730 (d)	0	10R	10MS	0	TMR
36	GW 322 (C)	0	TR	15MS	0	TR
37	HD 2864 (C)	0	TR	15MR	0	TMR
38	HD 2932 (C)	0	40S	15MS	0	50S
39	HI 1544 (C)	0	TR	5MR	0	TR
40	HI 8498 (D) (C)	0	20R	10MR	0	10R
40. A	INFECTOR	60S	70S	80S	60S	70S
41	HI 8737 (D)(I) (C)	0	20R	0	0	TR
42	MP 3336 (C)	10S	5MR	R	0	TR
43	MP 4010 (C)	0	TR	10MS	0	TR
44	MPO 1215 (d) (C)	0	5R	0	0	5R
<b>V. PENINSULAR ZONE</b>						
45	MACS 3927 (d)	20S	60S	5MR	10S	80S

Sr. No.	Variety	77-5			104-2	
		Ludhiana	Delhi	Powerkheda	Ludhiana	Delhi
46	NIAW 2030	0	TR	TR	0	5R
47	AKDW 2997-16(d) (C)	5S	30MR	0	0	40MR
48	DBW 93 (I) (C)	0	TR	0	0	TR
49	MACS 6222 (C)	0	TR	10MS	0	0
50	MACS 6478 (C)	0	TR	10MR	0	0
51	NI 5439 (C)	20S	50S	40S	40S	60S
52	NIAW 1415 (C)	0	TR	TR	0	TR
53	UAS 347 (I) (C)	0	TR	0	0	5RMR
54	UAS 428 (d) (C)	0	40MR	0	0	40MRMR
55	UAS 446 (d) (I) (C)	0	TR	TR	0	TR
<b>VII. SPECIAL TRIAL</b>						
56	(HD 2932 + Lr 19/Sr25)	0	5R	0	0	TR
57	MMBL 283	20S	5MR	5MR	0	TR
58	PBW 723	0	TR	10MS	0	TR
59	DBW 14 (C)	0	TR	15MR	0	TR
60	DDK 1029 (C)	0	20R	0	0	30R
60. A	INFECTOR	60S	80S	80S	60S	90S
61	HD 2985 (C)	10S	10R	TR	0	10R
62	HI 1563 (C)	0	TR	0	0	TR
63	HUW 234 (C)	40S	60S	20MS	0	40S
64	HW 1098 (C)	0	20R	0	0	20MR
65	K 0307 (C)	0	TR	5MR	0	TR
66	Kharchia 65 (C)	80S	80S	TR	60S	80S
67	KRL 19 (C)	0	40S	TR	0	30MR
68	KRL 210 (C)	10S	TR	10MS	0	5R
69	PBW 343 (C)	0	30MSS	15MS	0	40S
70	Raj 4083 (C)	0	TR	R	0	TR
71	TL 2942 (C)	0	TR	0	0	0
72	TL 2969 (C)	0	TR	0	0	0
73	WH 542 (C)	10S	5R	10MS	0	TR
73. A	INFECTOR	60S	80S	70S	40S	60S
<b>AVT Ist</b>						
<b>I. NORTHERN HILL ZONE</b>						
1	HPW 393	0	TR	5MS	0	TR
2	HPW 394	40S	TMR	0	0	5R
3	HPW 413	10S	TR	5MS	5S	5MR
4	HPW 421	10S	30MRMS	10MS	5S	30MR
5	HPW 422	0	TR	TR	0	0
6	HS 580	0	TR	5MR	0	TR
7	HS 583	0	0	0	0	0
8	HS 590	0	0	0	0	TR
9	HS 596	10S	TR	5MS	0	TR
10	HS 597	40S	20RMR	0	20S	TMR
11	HS 598	0	TR	10MR	0	0
12	HS 599	0	TR	5MS	0	TR
13	HS 600	0	0	0	0	0
14	HS 601	0	TR	10MS	0	TR
15	UP 2917	0	TR	0	0	TMR
16	UP 2918	0	5R	TR	0	TR
17	VL 1005	0	0	15MS	0	TR
18	VL 1006	5S	TMR	TR	0	TMR
19	VL 1007	10S	5R	20MS	0	10MR
20	VL 3002	0	TR	10MR	0	5R
20. A	INFECTOR	60S	80S	80S	40S	70S
21	VL 3007	0	TR	5MS	0	TR
22	VL 3008	0	TR	TR	0	TMR

Sr. No.	Variety	77-5			104-2	
		Ludhiana	Delhi	Powerkheda	Ludhiana	Delhi
23	VL 3009	0	30MR	10MS	0	10MR
24	VL 4001	0	0	5MS	0	0
<b>II. NORTH WESTERN PLAIN ZONE</b>						
25	DBW 147	0	0	0	0	5R
26	DBW 148	5S	TR	0	0	TR
27	DBW 150	0	TR	TR	0	TR
28	DDW 31	0	30R	TR	0	20R
29	DDW 32	0	60S	0	0	10MS
30	HD 3159	0	TR	0	0	5MR
31	HD 3165	0	5R	10MS	0	TR
32	HD 3174	0	5R	15MS	0	TR
33	HI 1604	0	TR	15MS	0	TR
34	HI 1605	10S	10R	TR	0	10R
35	HUW 688	0	0	10MS	0	TR
36	K 1312	0	TR	TR	0	TR
37	K 1313	0	0	10MS	0	0
38	K 1314	0	TR	10MS	0	TR
39	MACS 3949	0	10R	TR	0	TR
40	MACS 4024	0	5R	0	0	5R
40. A	INFECTOR	60S	70S	70S	60S	80S
41	NW 6024	-	-	-	-	-
42	PBW 707	10S	5MR	10MS	10S	5R
43	PBW 709	5S	5R	0	0	5R
44	PBW 716	0	TR	10MS	0	TR
45	PBW 718	0	TR	0	0	TR
46	PBW 719	0	0	10S	0	TR
47	UP 2883	20S	5R	15MS	0	TR
48	WH 1179	20S	10R	10MS	0	5MR
<b>III. NORTH EASTERN PLAIN ZONE</b>						
49	HD 3171	0	TR	0	0	TMR
50	K 1317	0	TR	10MS	20S	TR
<b>IV. CENTRAL ZONE</b>						
51	CG 1015	0	5MR	TR	40S	TR
52	GW 463	0	TR	10MS	0	TR
53	HI 8759 (d)	0	20RMR	0	5S	10R
<b>V. PENINSULAR ZONE</b>						
54	GW 1315 (d)	60S	10R	TR	20S	20R
55	HD 3164	0	5R	R	0	TR
56	HI 8765 (d)	0	20R	0	0	10R
57	JWS 712	0	5MR	10MS	0	5MR
58	K 1315	0	TR	10MR	0	TR
59	MACS 3970 (d)	0	50MRMS	5MR	0	40MRMS
60	MACS 3972 (d)	0	20MR	10MS	5MS	30MR
60. A	INFECTOR	60S	80S	80S	60S	70S
61	MACS 4020 (d)	20S	40MR	TR	10S	50MRMS
62	PBW 721	0	TR	R	0	TR
63	UAS 360	0	TR	20MR	0	0
64	UAS 361	40S	5R	TR	5S	TR
65	UAS 453 (d)	0	10R	TR	0	10R
66	UAS 455 (d)	0	30R	R	0	20RMR
<b>VI. SPECIAL TRIAL (Dicoccum and Sailinity and Alkalinity)</b>						
67	DBW 181	0	0	20MS	0	0
68	DBW 182	0	TR	10MR	0	TR
69	DBW 183	10S	T\10R	15MS	0	5R
70	DBW 184	60S	20MSS	10MR	40S	30MS
71	DBW 185	40S	20MR	5MS	5S	20MRMS

Sr. No.	Variety	77-5			104-2	
		Ludhiana	Delhi	Powerkheda	Ludhiana	Delhi
72	DDK 1048	0	10R	0	0	10R
73	DDK 1049	0	30R	0	0	20R
74	KRL 350	0	TR	TR	0	TR
75	KRL 351	0	5R	10MS	0	TR
76	MACS 5041	0	10R	5MS	0	5R
77	MACS 5043	0	20R	TR	0	10R
78	WH 1309	10S	20MR	0	0	20MR
<b>VII. SPECIAL TRIAL (TRITICALE)</b>						
79	TL 3001	0	5R	5MR	0	5R
80	TL 3002	0	TR	0	0	5R
80. A	INFECTOR	60S	70S	70S	40S	80S
81	TL 3003	0	TR	0	0	TR
82	TL 3004	0	5R	R	0	10RMR
83	TL 3005	0	10R	R	0	5MR
<b>VIII. SPECIAL TRIAL (MABB/NIL (KB) ENTRIES)</b>						
84	DWR-NIL-01	0	50S	10MS	5S	60S
85	DWR-NIL-02	0	20RMR	0	0	10R
86	HD 3209	0	TR	10MS	0	TR
87	KB 2012-13	0	10R	10MS	0	5R
<b>IX. SPECIAL TRIAL (Wheat Biofortification)</b>						
88	HPBW 01	0	TR	10MR	0	TR
89	HPBW 02	0	TR	0	0	TR
90	HPBW 05	0	5R	10MS	10S	TR
91	HPBW 07	40S	20RMR	15MS	20S	5MR
92	HPBW 08	0	TR	15MS	0	TR
93	HPBW 09	0	TR	TR	0	TR
94	HUW 695	0	5MR	0	0	TR
95	HUW 711	0	TR	TR	10S	5R
96	HUW 712	0	TR	10MS	0	TMR
97	MACS 6507	20S	20MR	15MS	0	10R
98	WB 1	0	TR	20MS	0	TR
99	WB 2	0	TR	10MS	0	TR
100	WB 5	0	TR	15MS	0	TR
100. A	INFECTOR	60S	90S	70S	60S	80S

Race specific Adult plant resistance of AVT II entries to individual races of brown, yellow and black rust during 2014-15 at RS Flowerdale Shimla

S. No.	VARIETY	Brown rust					Yellow rust					Black rust				
		77-5		104-2		APR to	46S119		78S84		APR to	40A		117-6		APR to
		SRT	APR	SRT	APR		SRT	APR	SRT	APR		SRT	APR	SRT	APR	
<b>Northern Hills Zone</b>																
1	HS562	S	5R	S	10R	Both	S	0	S	5MS	46S119	S	40S	MS	20MSS	-
2	HPW251 (C)	S	5R	R	0R	77-5	MS	0	MS	0	both	R	20MR	R	5MR	-
3	HPW349 (C)	S	0	S	10R	Both	S	0 (LTN)*	MS	0 (LTN)	both	S	60S	MS	5MSS	-
4	HS375 (C)	MS	5R	R	0R	77-5	S	0	S	0	both	R	0	R	0	-
5	HS490 (C)	R	5R	S	0R	104-2	MX	TMR	R	0	-	MR	0	R	TMRMS	-
6	HS507 (C)	R	0	R	0R	-	MS	0	MS	TMR	both	R	0	R	TMR	-
7	HS542 (C)	M	0	S	0R	-	MS	0	MS	0	both	R	0	R	0	-
8	VL804 (C)	S	0	S	20MS	77-5	MS	0	S	5MR	both	R	0	R	TMR	-
9	VL829 (C)	S	0	S	0R	Both	MS	TMS	S	0	78S84	R	5MR	R	TMR	-
10	VL892 (C)	R	0	S	0R	104-2	MS	0 (LTN)	R	0 (LTN)	46S119	MS	20MS	MS	5MS	-
11	VL907 (C)	R	0	R	0R	-	MS	0	MS	0	both	R	10MR	R	0	-
<b>North Western Plain Zone</b>																
12	HD4730	R	5R	R	0R	-	MS	-	S	0	both	MR	10MR	S	TMS	-
13	MP1277	R	5R	S	0R	104-2	R	0	S	5MS	-	MS	40MSS	MR	TMR	-
14	WH1164	M	0	S	0R	104-2	R	0 (LTN)	MS	0(LTN)	78S84	R	TMR	S	10S	-
15	DBW88 (C)	S	0	R	0R	77-5	MS	0	R	0	46S119	R	5MSS	S	TS	-
16	DBW90 (C)	S	0	S	0R	both	MX	0	MS	TMR	46S119	MR	5MS	S	10MSS	-
17	DPW621-50 (C)	R	0	R	0R	-	MS	0	MS	0	both	R	5MS	R	0	-
18	HD2967 (C)	S	0	R	0R	77-5	S	0	MS	0	both	MR	10MRMS	R	5MSS	-
19	HD3043 (C)	S	0	S	0R	both	R	0	R	0	-	R	0	R	0	-
20	HD3059 (C)	MS	0R	R	0R	77-5	R	0	R	0	-	MS	5MRMS	R	0	-
21	HD3086 (C)	S	0R	S	0R	both	S	TMR	MS	0	both	R	5MR	R	40MSS	-
22	PBW644 (C)	MS	0R	S	0R	both	MS	0	S	0	both	S	10MS	R	5MRMS	-
23	PDW233 (C)	S	TR	S	20R	both	S	0	S	0	both	R	5MR	S	5MSS	-
24	PDW291 (C)	R	5R	MS	20MS	-	S	0	S	0	both	R	10MRMS	S	10MS	-
25	PDW314 (C)	S	5R	MS	40MS	77-5	MX	0	S	0	78S84	MR	20MS	S	10S	-
26	WH1021 (C)	MS	TR	R	TMS	77-5	S	0	MS	TS	46S119	R	10MRMS	R	TMSS	-
27	WH1080 (C)	S	10R	S	0R	77-5	MS	0	MS	0	both	MS	20MS	MS	TMSS	-

S. No.	VARIETY	Brown rust					Yellow rust					Black rust				
		77-5		104-2		APR to	46S119		78S84		APR to	40A		117-6		APR to
		SRT	APR	SRT	APR		SRT	APR	SRT	APR		SRT	APR	SRT	APR	
28	WH1105 (C)	R	0R	R	0R	-	MS	0	MS	TMR	both	MS	30MS	MS	TMSS	-
29	WH1124 (C)	S	5R	S	0R	both	S	0	MS	0	both	MR	10MR	MS	40MSS	-
30	WH1142 (C)	S	20MS	S	0R	104-2	S	0	MS	5MR	both	R	0	MS	10MSS	-
<b>North Eastern Plain Zone</b>																
31	C306 (C)	R	0R	S	0R	104-2	R	0	MR	10MR	-	MS	10MSS	MS	20MSS	-
32	HD2888 (C)	R	0R	R	0R	-	S	0	S	TMR	both	MR	10MR	MR	5MR	-
33	K8027 (C)	S	20S	S	60S	-	S	0	MS	-	46S119	S	60S	S	40MSS	-
<b>Central Zone</b>																
34	HD4728 (D)	R	0R	R	0R	-	MS	0	MS	0	both	MR	20MR	S	5MSS	-
35	HD4730 (D)	R	0R	R	0R	-	S	0	S	0	both	MS	20MRMS	S	5MS	-
36	GW322 (C)	M	0R	R	0R	-	S	40MSS	S	5MRMS	-	MS	20MS	MS	TMS	-
37	HD2864 (C)	R	0R	R	0R	-	S	10MRMS	S	20 MRMS	-	MR	10MR	MR	10MR	-
38	HD2932 (C)	S	40MS	S	20MS	-	S	20MRMS	S	10MS	-	MS	30MS	MS	5MS	-
39	HI1544 (C)	R	0R	R	0R	-	R	TMR	MS	10MRMS	-	MR	30MR	MR	5MR	-
40	HI8498 (D) (C)	MS	10R	S	20S	-	R	0	MS	0	-	MR	20MR	MS	5MS	-
41	HI8737 (D) (C)	S	5R	S	0R	both	MS	0	S	0	78S84	MR	5MR	MS	TMS	--
42	MP3336 (C)	S	10MS	S	0R	104-2	S	5MR	MX	40S	46S119	MR	30MR	MS	10MS	-
43	MP4010 (C)	S	0R	R	0R	77-5	S	5MRMS	S	50MRMS	-	MR	20MR	MR	10MR	-
44	MPO1215 (D) (C)	MS	0R	-	0R	-		-	S	-	-	MR	10MR	MS	20MS	-
<b>Peninsular Zone</b>																
45	MACS3927 (D)	S	40S	S	10R	104-2	R	0	R	0	-	MS	TMS	MS	5MRMS	-
46	NIAW2030	R	0R	R	0R	-	S	20MS	S	40MSS	-	MR	40MR	MR	30MR	-
47	AKDW2997-16 (D) (C)	MS	0R	R	0R	-	MR	-	S	-	-	MR	20MR	S	0	117-6
48	DBW93 (I) (C)	MS	0R	S	0R	104-2	MS	5MRMS	S	20MRMS	-	MR	20MR	MR	TMR	-
49	MACS6222 (C)	R	0R	R	0R	-	S	40MSS	S	20MRMS	-	MR	TMR	MR	TMR	-
50	MACS6478 (C)	R	0R	MS	0R	-	MS	0	MS	0	both	MS	10MS	MS	30MSS	-
51	NI5439 (C)	S	80S	S	100S	-	MX	60MSS	S	60MSS	-	S	80S	MS	40MSS	-
52	NIAW1415(C)	R	0R	R	0R	-	S	60MS	MS	40MRMS	-	MR	5MR	TMR	TMR	-
53	UAS347 (I) (C)	S	80S	S	10R	104-2	S	5MR	S	20MRMS	-	MS	30MRMS	MS	20MS	-
54	UAS428 (D) (C)	S	5MS	S	0R	-	S	0	MS	0	both	R	0	S	5MR	117-6
55	UAS446 (D) (I) (C)	R	10R	R	0R	-	R	0	S	0	78S84	MR	30MR	MS	20MSS	-

S. No.	VARIETY	Brown rust					Yellow rust					Black rust				
		77-5		104-2		APR to	46S119		78S84		APR to	40A		117-6		APR to
		SRT	APR	SRT	APR		SRT	APR	SRT	APR		SRT	APR	SRT	APR	
<b>Special trial</b>																
56	HD2932+Lr 19/Sr 25	R	0R	R	0R	-	MS	30MRMS	S	40MRMS	-	MR	40MR	MR	20MR	-
57	MMBL283	S	5R	S	20S	77-5	MS	20MR	S	10MR	both	MS	30MSS	S	10MSS	-
58	PBW723	R	0R	R	0R	-	R	-	R	0	-	MR	TMR	R	0	-
59	DBW14 (C)	S	10R	R	0R	77-5	MS	0(LTN)	S	5MR	both	MS	20MS	MS	5MS	-
60	DDK1029 (C)	R	20R	S	20R	104-2	MR	20MRMS	S	20MRMS	-	MS	20MR	S	40MRMS	-
61	HD2985 (C)	S	0R	S	0R	104-2	S	5MRMS	S	10MRMS	-	MS	10MS	MS	TMS	-
62	HI1563 (C)	R	0R	R	0R	104-2	MS	0	MS	0(LTN)	both	MR	10MR	R	0	-
63	HUW234 (C)	S	60S	S	0R	104-2	MS	10MRMS	S	5MR	78S84	MS	30MSS	MS	30MRMS	-
64	HW1098 (C)	S	20R	S	10R	both	MS	60MSS	S	40MRMS	-	MR	20MR	MS	20MS	-
65	K0307 (C)	S	40MS	R	5R	-	MS	20MR	S	10MR	both	MR	TMR	MR	20MR	-
66	KARCHIA65 (C)	S	80S	S	0R	104-2	S	80S	S	-	-	MS	60MSS	S	80MSS	-
67	KRL19 (C)	S	10MS	R	0R	-	MS	60MSS	S	80MSS	-	MS	20MRMS	MS	20MRMS	-
68	KRL210 (C)	S	5MS	S	0R	104-2	MS	5MR	MX	5MR	-	S	10S	MS	60MSS	-
69	PBW343 (C)	MS	10R	S	10R	both	S	30MRMS	S	30MRMS	-	MS	10MRMS	R	10MR	-
70	RAJ4083 (C)	S	0R	S	0R	both	MS	0	S	5MR	both	MS	10MS	R	0	-
71	TL2942 (C)	S	0R	S	0R	both	S	0	S	0	both	MR	5MR, 1P5MS	R	0	-
72	TL2969 (C)	S	0R	MS	0R	both	MS	0	S	0	both	MR	20MR	MR	TMR	-
73	WH542 (C)	S	10MS	S	0R	104-2	MR	TMR	MS	5MRMS	-	MR	5MR	MR	5MR	-
*Leaf tip necrosis																



Race specific Adult plant resistance of AVT I entries to individual races of brown, yellow and black rust during 2014-15\* at RS Flowerdale, Shimla

S. No.	VARIETY	Brown rust					Yellow rust					Black rust				
		77-5		104-2		APR to	46S119		78S84		APR to	40A		117-6		APR to
		SRT	APR	SRT	APR		SRT	APR	SRT	APR		SRT	APR	SRT	APR	
<b>Northern Hills Zone</b>																
1	HPW393	S	0	R	0	both	S	TMR	S	0	78S84	MS	0	R	0	40A
2	HPW394	S	5S	S	0	104-2	R	0	R	0	-	S	40S	R	0	-
3	HPW413	S	40MS	S	0	104-2	S	0	S	0	both	MS	0	R	0	40A
4	HPW421	MS	40MS	S	0	104-2	S	0	MS	0	both	R	0	R	0	-
5	HPW422	S	0	S	0	both	MS	TMR	MS	TMR	-	R	0	MS	TS	-
6	HS580	S	TR	R	0	-	S	20MR	R	0	46S119	R	0	R	0	
7	HS583	R	0	S	0	104-2	S	30MRMS	S	TMR	-	MS	0	MS	-	40A
8	HS590	R	0	R	0	-	R	0	R	0	-	MR	0	MR	-	-
9	HS596	R	-	R	0	-	R	0	R	0	-	R	0	R	-	-
10	HS597	S	0	S	0	both	R	0	R	0	-	S	10S	S	0	117-6
11	HS598	S	0	S	0	both	S	10S	TS	TS	-	R	0	R	0	-
12	HS599	R	0	R	TR	-	S	0	R	0	46S119	R	0	R	0	-
13	HS600	R	0	MS	10MS	-	MS	0(LTN)	R	0	-	S	20S	R	0	-
14	HS601	R	0	S	0	104-2	S	5MR	S	TMR	-	MS	TS	R	0	-
15	UP2917	S	-	R	0	-	S	10MR	R	TMR	-	R	0	R	0	-
16	UP2918	S	TS	R	0	-	MS	0	S	10MR	46S119	R	0	R	0	-
17	VL1005	R	0	R	TR	-	MS	0	R	0	-	R	0	R	0	-
18	VL1006	S	0	R	0	77-5	S	10MRMS	S	TMR	-	MS	TS	R	0	-
19	VL1007	S	0	S	0	both	S	5MRMS	R	0	-	R	0	R	0	-
20	VL3002	R	0	S	TR	-	R	0	R	0	-	R	0	R	0	-
21	VL3007	R	0	R	0	-	MS	0	R	0	-	R	0	R	0	-
22	VL3008	R	0	R	0	-	S	0	R	0	46S119	R	0	R	0	-
23	VL3009	R	0	S	0	104-2	S	0	R	TMR	46S119	S	TS	R	0	-
24	VL4001	R	0	R	0	-	MS	0(LTN)	S	0	both	R	0	R	0	-
<b>North Western Plain Zone</b>																
25	DBW147	R	0	R	0	-	S	0	R	0	46S119	R	0	R	0	
26	DBW148	S	40MS	S	0	104-2	S	TMR	MS	5MRMS	-	S	40S	MS	0	117-6
27	DBW150	R	0	R	TR	-	MS	0	R	TMR	-	S	5S	R	0	-

S. No.	VARIETY	Brown rust					Yellow rust					Black rust				
		77-5		104-2		APR to	46S119		78S84		APR to	40A		117-6		APR to
		SRT	APR	SRT	APR		SRT	APR	SRT	APR		SRT	APR	SRT	APR	
28	DDW31	S	0	R	0	77-5	S	0	S	5MR	both	R	0	S	0	117-6
29	DDW32	S	0	R	0	77-5	R	0	R	TMR	-	S	0	S	-	both
30	HD3159	S	-	S	0	104-2	S	TMRMS	S	-	-	R	TR	R	0	-
31	HD3165	S	0	S	0	both	S	20MRMS	MS	0	-	MR	0	MS	0	117-6
32	HD3174	S	0	S	0	both	S	10MR	MS	5MRMS	-	MR	0	R	0	-
33	HI1604	S	0	R	0	77-5	S	5MR	MS	5MR	-	R	0	R	0	-
34	HI1605	S	0	S	0	both	S	0	S	0	both	R	0	R	0	-
35	HUW688	R	0	R	0	-	R	TMR	R	0	-	MS	0	R	-	40A
36	K1312	R	0	R	0	-	S	0	MS	0	46S119	MS	0	R	0	40A
37	K1313	M	0	R	0	-	MS	0	R	-	-	R	0	R	0	-
38	K1314	M	0	S	0	104-2	S	0	R	0	46S119	S	5S	R	0	-
39	MACS3949	R	0	R	0	-	MS	0	R	0	-	R	0	S	-	-
40	MACS4024	R	0	MR	20MR	-	R	0	R	0	-	R	0	S	0	117-6
41	NW6024	-	-	-	-	-		-		-	-	-	-	-	-	-
42	PBW707	S	5S	S	0	104-2	S	10MRMS	MS	-	-	R	0	R	0	-
43	PBW709	MX	0	S	80S	-	R	0	R	0	-	MR	TR	R	0	-
44	PBW716	R	0	R	0	-	MS	0	R	0	-	S	40S	R	0	-
45	PBW718	S	0	S	0	both	S	TMR	MS	TMR	-	R	0	R	0	-
46	PBW719	S	0	R	0	77-5	S	0	R	0	46S119	R	0	R	0	-
47	UP2883	S	0	S	0	both	R	0	R	TMR	-	MR	TR	R	0	-
48	WH1179	S	20MS	S	0	104-2	S	TMR	MS	0	78S84	R	0	R	0	-
<b>North Eastern Plain Zone</b>																
49	HD3171	MR	20MR	S	0	104-2	R	0	R	0	-	MS	0	R	0	40A
50	K1317	S	10MR	R	0	-	MS	0	R	0	46S119	R	0	R	0	-
<b>Central Zone</b>																
51	CG1015	S	0	R	0	77-5	MR	5MR	MS	5MRMS	-	MS	0	R	-	40A
52	GW463	S	0	R	-	77-5	S	10MRMS	S	60MS	-	R	0	R	0	-
53	HI8759 (D)	S	0	S	0	both	MR	0	MS	0	-	R	0	S	-	-
<b>Peninsular Zone</b>																
54	GW1315(D)	S	0	S	TR	77-5	S	30MS	S	60MSS	-	MR	0	S	0	117-6
55	HD3164	R	TR	S	0	-	S	20MRMS	R	5MR	-	R	TR	R	0	-
56	HI8765 (D)	R	0	R	0	-	S	0	S	10MR	both	R	0	MS	0	117-6

S. No.	VARIETY	Brown rust					Yellow rust					Black rust				
		77-5		104-2		APR to	46S119		78S84		APR to	40A		117-6		APR to
		SRT	APR	SRT	APR		SRT	APR	SRT	APR		SRT	APR	SRT	APR	
57	JWS712	R	0	MS	10MS	-	S	30MRMS	MS	30MRMS	-	R	0	R	0	-
58	K1315	S	0	R	0	77-5	S	0	MS	0	46S119	MR	0	R	0	40A
59	MACS3970(D)	MS	20MS	R	10R	-	MS	0	MS	0	both	S	40S	S	0	117-6
60	MACS3972(D)	S	0	S	-	both	R	0	R	0	-	R	0	R	0	-
61	MACS4020(D)	MS	40MS	S	-	-	S	0	S	0	both	MR	0	S	0	117-6
62	PBW721	R	0	R	0	-	S	TMR	S	0	78S84	R	0	R	0	-
63	UAS360	R	5R	S	0	104-2	S	5MR	S	20MRMS	-	MS	0	R	0	40A
64	UAS361	R	0	S	20S	-	S	20MRMS	MS	20MS		R	0	R	0	-
65	UAS453(D)	R	0	R	0	-	MX	-	S	0	46S119	MR	0	MS	-	-
66	UAS455(D)	S	TS	S	0	both	R	0	MS	0	both	S	0	MS	-	40A
<b>Special Trial (Dicoccum, Salinity and Alkalinity)</b>																
67	DBW181	S	0	S	0	both	S	0	S	0	both	S	40S	R	TR	-
68	DBW182	S	0	R	10R	both	R	0	R	0	-	MS	TS	R	0	
69	DBW183	S	TS	S	0	104-2	S	10MR	MX	5MR	-	S	20S	R	0	-
70	DBW184	S	0	S	0	both	MS	0	MS	0	both	S	60S	R	0	-
71	DBW185	R	0	S	0	104-2	S	0	MS	0	both	MR	0	R	0	-
72	DDK1048	R	0	S	20R	104-2	MR	20MRMS	R	20MRMS	-	MR	0	S	TR	-
73	DDK1049	MS	40MS	S	0	104-2	R	60MSS	MR	20MRMS	-	R	0	S	10S	-
74	KRL350	MS	0	R	0	-	S	0	S	0	both	S	20S	R	0	-
75	KRL351	S	0	S	;R	77-5	S	TMR	S	TMR	-	S	0	R	0	40A
76	MACS5041	R	;R	S	;R	104-2	MR	50MRMS	MS	60MS	-	R	0	S	0	117-6
77	MACS5043	R	;R	S	60S	-	MX	50MRMS	S	60MS	-	R	0	S	0	117-6
78	WH1309	S	0	S	20MS	77-5	S	10MRMS	S	5MR	-	MS	0	R	0	40A
<b>Special Trial (Triticale)</b>																
79	TL3001	R	0	S	0	104-2	S	20MR	MS	0	-	S	40S	R	0	-
80	TL3002	R	0	R	0	-	S	5MR	S	0	78S84	R	0	R	0	-
81	TL3003	R	0	R	0	-	MS	TMR	S	0	78S84	R	0	R	0	-
82	TL3004	S	0	S	0	both	S	0	S	0	78S84	S	60S	R	0	-
83	TL3005	S	0	S	80S	77-5	S	0	S	5MR	46S119	S	20S	R	0	-
<b>Special Trial (MABB/NIL (KB) entries)</b>																
84	DWR-NIL-01	R	20MS	S	40S	-	MS	20MRMS	S	40MRMS	-	S	10MS	R	0	-
85	DWR-NIL-02	S	20MS	S	0	104-2	S	TMR	MS	10MRMS	-	R	0	R	0	-

S. No.	VARIETY	Brown rust					Yellow rust					Black rust				
		77-5		104-2		APR to	46S119		78S84		APR to	40A		117-6		APR to
		SRT	APR	SRT	APR		SRT	APR	SRT	APR		SRT	APR	SRT	APR	
86	HD3209	R	0	R	0	-	S	10MRMS	S	30MRMS	-	S	TS	S	TS	-
87	KB2012-03	S	0	R	0	77-5	S	10MRMS	S	30MRMS	-	S	40S	R	0	-
<b>Special Trial (Wheat Bifortification)</b>																
88	HPBW01	MS	0	S	0	104-2	S	0	MS	0	46S119	S	40S	R	0	-
89	HPBW02	R	0	R	0	-	MS	0	MS	0	both	S	40S	R	0	-
90	HPBW05	S	0	R	TR	77-5	MS	0	MS	0	both	S	20S	R	0	-
91	HPBW07	R	0	S	0	104-2	R	0	R	TMR	-	R	0	R	-	-
92	HPBW08	R	0	MS	TS	-	S	TR	S	0	78S84	R	0	R	0	-
93	HPBW09	R	0	R	0	-	R	0	R	0	-	R	0	R	-	-
94	HUW695	R	0	R	0	-	R	0	R	0	-	S	40S	R	0	-
95	HUW711	MS	0	R	0	-	S	0	MS	0	both	S	40S	R	0	-
96	HUW712	S	0	R	0	77-5	S	0	MS	0	both	S	20S	R	0	-
97	MACS6507	S	0	S	0	both	S	0	MS	0,1P 20MS	46S119	R	0	R	0	-
98	WB1	R	0	R	0	-	MS	0	MS	0, 1P 20MRMS	both	MR	0	R	0	-
99	WB2	R	0	R	0	-	MS	0	MS	0	both	MS	-	R	0	-
100	WB5	R	0	R	0	-	S	0	S	0	both	MR	0	R	0	-
*= <b>Infection was poor, needs confirmation</b>																