

Table1 : Seedling response of NBDSN lines to the pathotypes of three rust pathogens of barley during 2018-19

S. No.	NBDSN Entries	Pathotypes																		
		Brown rust					Black rust					Yellow rust								
		H1	H2	H3	H4	H5		11	21A-2	40A	117-6	295		57	M	24	G	6S0	Q	7S0
1	BH 1023	S	S	MS	S	MS		R	R	R	S	MS		R	R	R	R	R	R	R
2	BH 1024	R	R	R	R	R		R	R	R	R	R		S	S	R	R	MS	R	S
3	BH 1025	S	S	R	S	S		R	R	R	R	MS		MR	S	R	R	R	R	S
4	BHS 472	S	S	S	S	S		MS	R	R	MS	R		R	MR	R	R	R	R	R
5	BHS 474	R	R	R	R	R		S	MR	R	MR	R		R	R	R	R	R	R	R
6	BHS 475	R	R	R	R	R		MS	R	R	R	R		MS	R	S	R	R	R	R
7	BHS 476	R	S	MS	R	S		MR	R	S	R	S		R	S	MS	S	R	S	S
8	BHS 477	R	R	R	R	R		R	R	MR	R	R		S	S	S	S	R	S	R
9	DWRB 160	S	MS	S	MS	R		S	R	R	MS	S		MS	MS	R	R	R	MS	R
10	DWRB 182	R	MS	MS	S	MS		R	R	R	R	R		R	R	R	R	R	R	R
11	DWRB 184	R	R	R	R	R		R	R	R	MS	S		R	MR	R	R	R	S	R
12	DWRB 188	R	R	R	R	R		R	R	MR	R	R		R	MR	MX	R	R	R	MS
13	DWRB 196	S	S	R	S	R		MS	R	R	R	MS		S	MS	R	R	R	MS	S
14	DWRB 197	R	R	R	R	R		S	R	R	R	R		S	S	S	S	R	S	MX
15	DWRB 198	S	MS	R	MS	R		R	R	R	R	MR		S	S	MS	R	MR	R	S
16	DWRB 199	S	S	R	S	R		S	R	R	R	MR		S	S	MS	R	R	MS	S
17	DWRB 200	MS	S	MS	MS	R		R	MR	R	R	S		R	R	R	R	R	R	R
18	DWRB 201	S	S	R	S	S		R	R	R	R	MS		R	R	R	R	R	R	R
19	DWRB 202	R	R	R	R	R		R	R	R	R	S		MS	S	MS	R	MS	S	MS
20	DWRB 203	R	MS	R	R	R		R	R	R	MR	R		S	S	MR	MS	S	S	S
21	DWRB 204	R	R	R	R	R		S	R	R	S	R		MX	MS	R	R	R	R	R
22	DWRB 205	S	S	R	R	R		S	R	R	S	S		S	S	MR	MS	S	R	R
23	DWRB 206	R	R	R	R	R		MS	R	R	S	R		R	S	R	S	R	R	S
24	DWRB 207	S	S	MS	S	S		S	S	S	S	S		R	R	R	R	R	R	R
25	HBL 845	R	R	R	R	R		R	R	R	MS	R		R	R	R	R	R	R	R
26	HBL 848	R	R	R	R	R		R	R	R	R	S		MR	MX	R	R	MS	R	MS
27	HBL 851	R	R	R	R	R		R	R	R	R	MS		R	R	R	R	R	S	MS
28	HBL 858	S	S	S	S	S		MS	S	R	R	R		R	S	R	R	R	R	S
29	HBL 863	R	R	R	R	R		MS	S	R	R	S		R	R	R	R	R	R	R
30	HUB 265	S	R	S	R	MR		MS	R	MR	S	S		S	S	S	S	S	S	S
31	HUB 266	S	S	R	S	MS		MS	MR	MR	S	S		R	R	R	R	R	R	R
32	HUB 267	S	S	S	S	S		R	R	MR	S	MS		S	S	R	MS	S	MX	S
33	HUB 268	S	S	R	R	R		S	S	MS	S	MR		S	S	S	MS	S	S	S
34	KB 1706	R	R	R	R	R		R	R	MR	S	S		S	MS	MS	MS	R	S	MR
35	KB 1707	S	S	S	S	S		S	MS	MR	R	S		R	R	R	R	R	R	R
36	KB 1713	S	S	R	MS	MS		S	MR	S	S	S		R	R	R	R	R	R	R
37	KB 1743	S	S	S	S	S		S	S	MR	S	S		S	S	S	S	S	S	S
38	KB 1750	S	MS	R	R	R		R	MR	R	MR	S		MS	MS	MR	MS	R	MX	MS
39	KB 1754	S	S	R	R	R		MS	S	MS	S	S		S	S	R	MS	S	S	S
40	KB 1757	R	R	R	R	R		R	R	MR	MR	R		MS	MS	MR	MR	R	R	MX

41	KB 1762	R	R	R	R	R		S	S	R	S	S		R	R	R	R	R	R	R
42	NDB 1708	R	S	R	S	R		S	R	MR	S	S		S	S	R	R	R	S	MR
43	NDB 1709	S	S	S	S	S		MR	R	MS	MR	S		S	R	R	R	R	S	S
44	NDB 1712	S	R	S	MS	R		MR	R	R	MR	R		R	S	S	S	S	S	MR
45	NDB 1713	S	S	S	MS	S		R	R	R	MS	S		S	S	MS	MS	R	S	MS
46	NDB 1723	MR	S	S	S	S		S	R	MS	R	S		S	S	S	R	S	MX	S
47	PL 891	R	S	R	S	R		R	MR	R	R	S		MS	R	R	R	R	R	R
48	PL 906	S	S	S	S	MR		S	S	MS	S	S		R	R	R	R	R	R	R
49	PL 907	S	S	R	S	R		R	S	MS	S	S		S	S	R	S	S	S	S
50	PL 908	R	MS	R	R	R		MS	R	R	S	S		R	R	R	R	R	R	R
51	PL 909	S	S	S	S	MR		S	R	S	S	S		R	R	R	R	R	R	R
52	PL 910	S	S	S	MS	MR		MS	R	R	R	R		MR	S	R	R	MS	R	R
53	PL 911	S	S	S	MS	MS		S	S	S	S	S		R	R	R	R	R	R	R
54	RD 2969	S	S	S	S	MS		MR	R	R	S	MS		R	R	R	R	R	R	R
55	RD 2991	R	R	R	R	R		R	R	S	MS	S		R	R	R	R	R	R	R
56	RD 2992	S	R	R	MS	R		S	S	S	S	S		R	R	R	R	R	R	R
57	RD 2994	S	S	R	MS	R		MS	S	MS	S	S		R	R	R	R	MR	R	R
58	RD 2999	MS	MS	R	R	R		R	R	R	MS	S		R	R	R	R	R	R	R
59	RD 3000	S	S	R	MS	R		S	S	R	R	S		R	R	R	R	R	R	R
60	RD 3002	MS	S	R	R	R		R	R	R	MS	S		R	R	R	R	R	R	R
61	RD 3003	R	R	R	R	R		S	S	MR	S	S		R	R	R	R	R	R	R
62	RD 3004	S	S	S	MS	R		MS	S	R	MS	S		R	R	R	R	R	R	R
63	RD 3005	S	S	S	MS	MS		S	R	R	R	S		R	R	R	R	R	R	R
64	RD 3007	S	S	R	S	S		MS	R	R	S	S		S	S	R	MS	MS	S	S
65	RD 3008	R	R	R	R	R		R	R	R	R	R		MS	MS	R	R	R	S	R
66	RD 3009	R	R	R	MR	R		MR	R	MR	R	S		S	S	R	R	MS	S	R
67	RD 3010	S	MS	R	S	MR		MS	R	R	R	R		S	MS	R	MS	R	S	R
68	UPB 1074	S	S	S	S	MS		R	MS	R	S	MR		S	S	S	R	R	S	S
69	UPB 1077	S	S	S	S	R		R	R	MR	MR	S		MS	S	MR	S	R	S	S
70	UPB 1078	S	R	R	R	R		R	R	R	MS	R		MR	MR	R	R	R	R	MX
71	UPB 1079	NG	NG	NG	NG	NG		NG	NG	NG	NG	NG		NG	NG	NG	NG	NG	NG	NG
72	UPB 1080	R	R	NG	R	R		S	S	R	S	S		S	S	MS	S	R	S	S
73	UPB 1082	R	R	R	R	R		S	R	R	MS	R		NG	S	MR	S	R	S	R
74	VLB 155	R	S	R	R	R		S	R	R	R	S		S	MS	R	S	R	R	MR
75	VLB 161	S	S	S	MS	S		R	R	R	R	R		MS	NG	MR	MS	R	MR	R
76	VLB 162	MS	R	R	R	R		MR	R	S	R	R		S	S	R	S	MS	S	R
77	VLB 163	S	S	S	MS	R		R	MR	R	R	R		S	S	MS	MS	R	R	R
78	VLB 164	S	R	R	R	R		MS	R	R	S	R		S	R	R	S	R	S	MS
79	AZAD (c)	S	S	S	S	S		R	S	R	R	MS		S	S	S	R	S	R	S
80	BH 902 (c)	S	S	S	S	S		S	R	MR	MS	S		S	S	R	R	R	R	R
81	BH 946 (c)	S	S	S	S	S		S	S	S	S	S		S	S	S	S	S	MS	S
82	BHS 352 (c)	S	S	S	S	S		S	R	R	R	R		MS	S	R	R	MS	MS	MS
83	BHS 380 (c)	R	R	R	R	R		S	S	R	R	S		R	R	MS	S	R	S	S
84	BHS 400 (c)	R	S	R	R	R		S	R	MR	S	S		MS	MS	R	S	S	MS	S
85	DWRB 101 (c)	S	S	S	S	MS		MS	R	R	R	S		S	MS	R	R	R	MS	S
86	DWRB 123 (c)	MS	S	S	S	S		S	R	MR	R	R		S	MS	R	R	R	S	R
87	DWRB 137 (c)	S	S	S	S	MS		S	S	S	S	S		R	R	R	R	R	R	R
88	HBL 113 (c)	R	R	R	R	R		S	MS	R	R	R		MR	S	MR	R	R	R	R

89	HBL 276 ©	S	S	S	S	S		MS	R	R	R	R		R	MS	R	R	R	MS	S
90	HUB 113 (c)	S	S	S	S	MS		MS	S	R	S	S		R	R	R	R	R	R	R
91	K 1055 (c)	S	S	MS	S	MS		S	MS	MS	S	MS		S	S	S	S	S	S	S
92	K 1149 (c)	S	S	S	MS	MS		R	R	R	R	R		S	S	R	S	R	S	R
93	K 508 (c)	S	S	S	S	MS		S	S	MS	S	S		S	S	S	S	S	S	S
94	K 603 (c)	S	R	S	S	S		MS	S	R	S	S		S	S	S	S	S	S	S
95	Karan 16 (c)	S	S	S	S	R		S	R	MR	S	MR		S	S	S	S	R	S	S
96	Lakhan (c)	S	S	S	S	MS		R	S	R	S	S		S	S	S	S	S	S	S
97	NDB 1173 (c)	S	S	MS	S	S		R	S	R	S	S		S	S	R	R	S	R	S
98	NDB 1445 (c)	S	S	R	R	R		S	S	R	MS	R		S	R	R	S	S	S	S
99	NDB 943 (c)	S	S	S	S	MS		S	S	R	S	S		R	S	S	S	S	S	S
100	RD 2035 (c)	S	S	S	S	S		S	S	MR	S	S		S	S	S	S	S	R	S
101	RD 2552 (c)	S	S	S	S	S		S	S	MS	S	S		R	R	R	R	R	R	R
102	RD 2786 (c)	R	R	R	R	R		R	R	MS	S	MS		R	R	R	R	R	R	R
103	RD 2794 (c)	S	S	R	S	MS		R	R	R	S	R		R	R	R	R	R	R	R
104	RD 2849 (c)	S	S	S	S	S		S	MS	MS	R	MS		S	S	MS	S	R	S	R
105	RD 2899 (c)	MS	S	R	MS	R		S	S	MS	MR	S		R	R	R	R	R	R	R
106	RD 2907 (c)	S	S	R	S	R		S	R	R	S	S		R	R	R	R	R	R	R
107	VLB 118 (c)	R	S	R	R	R		S	MS	S	S	S		MS	MS	MR	S	S	S	S

Table2 : Seedling response of EBDSN lines to the pathotypes of three rust pathogens of barley during 2018-19

1	RD 2552	S	MS	MS	R	R		S	S	R	S	S		R	R	R	R	R	R	R
2	RD 2786	R	R	R	R	R		MR	MS	MR	R	R		R	R	R	R	R	R	R
3	RD 2794	S	S	R	MS	MS		R	R	S	R	S		R	R	R	R	R	R	R
4	RD 2899	S	S	MS	MR	R		S	MS	S	S	S		R	R	R	R	R	R	R
5	RD 2907	S	S	S	R	R		S	S	MS	MS	S		R	R	R	R	R	R	R
6	RD 2948	MS	S	R	MR	R		R	S	S	MR	S		R	R	R	R	R	R	S
7	RD 2967	S	S	S	MS	S		S	MS	S	S	S		R	R	R	R	R	R	R
8	RD 2971	S	S	S	MS	R		MS	S	MS	R	S		R	R	R	R	R	R	R
9	RD 2972	R	R	R	R	R		S	R	S	MS	S		R	R	R	R	R	R	R
10	RD 2973	R	R	R	R	R		R	MS	S	MS	S		R	R	R	R	R	R	R
11	RD 2975	R	R	R	R	R		S	S	R	R	S		R	R	R	R	R	R	R
12	RD 2976	R	R	R	R	R		MR	R	S	S	S		R	R	R	R	R	R	R
13	RD 2977	S	MS	S	MS	R		R	MR	S	MS	S		R	R	R	R	R	R	R
14	RD 2978	S	S	R	MS	R		R	MR	R	S	R		R	R	R	R	R	R	R
15	RD 2980	S	S	S	S	R		S	R	R	MR	S		R	R	R	R	R	R	R
16	RD 2981	MS	R	R	MS	R		S	MS	R	S	S		R	R	R	R	R	R	R
17	RD 2982	R	R	R	R	R		R	R	S	S	S		R	R	R	R	R	R	R

18	RD 2983	R	S	S	MR	R		MR	R	S	S	S		R	R	R	R	R	R	R
19	BK 1704	R	S	R	R	R		R	R	R	MS	R		S	S	R	R	MX	S	S
20	BK 1714	MS	S	R	S	R		R	R	R	MS	S		R	R	R	R	R	R	R
21	DWRB 186	S	S	MS	S	MR		R	MR	R	S	S		R	R	R	R	R	R	R
22	BK 1601	MR	MS	R	MS	R		R	MS	S	MR	S		MR	MR	S	MS	R	R	R
23	BK 1622	MS	S	R	S	R		MR	MR	S	S	S		R	R	R	R	R	R	R
24	DWRB 152	MS	S	R	MR	R		MR	R	MR	MR	MR		R	R	R	R	R	R	R
25	DWRB 137	S	S	R	S	R		MS	R	MR	S	S		R	R	R	R	R	R	R
26	DWRB 143	MS	MS	R	MR	R		MR	R	MS	R	R		R	R	R	R	R	R	R
27	DWRB 127	R	R	R	R	R		R	R	MR	R	R		R	R	R	R	R	R	R
28	BK 1716	S	S	R	MR	MR		R	R	S	R	R		MS	MS	R	MS	R	R	R
29	BK 1719	R	R	R	R	R		R	R	S	R	S		MS	MR	R	S	R	MS	R
30	BK 1723	R	R	R	R	R		R	R	S	S	S		S	S	S	S	R	S	S
31	BK 1725	R	R	R	R	R		MS	R	MS	S	R		S	MS	S	S	MX	MS	R
32	DWRB 178	R	R	R	R	R		R	R	S	S	S		MS	R	MS	S	R	MS	R
33	DWRB 180	R	R	R	R	R		R	R	R	MR	R		S	S	R	R	MS	MS	S
34	HBL 113	R	R	R	R	R		MR	NG	R	S	MR		R	MX	R	R	R	NG	R
35	HBL 276	MS	S	S	S	S		R	NG	R	R	S		S	R	MS	R	MX	NG	R
36	HBL 812	MS	R	R	R	R		R	MR	R	R	S		R	R	R	R	R	NG	R
37	HBL 814	R	S	R	R	R		R	R	R	R	R		R	R	R	R	R	NG	R
38	HBL 822	MS	MS	NG	R	R		R	R	R	MS	S		R	NG	MS	R	NG	R	R
39	BH 1011	S	S	S	MS	MR		R	R	R	R	MS		MS	S	R	MS	R	MS	R
40	BH 1013	R	R	R	R	R		S	S	R	R	S		S	S	S	S	S	S	S
41	BH 1014	S	S	MS	MS	MS		R	R	R	MR	MS		R	S	R	S	R	MS	R
42	BH 1017	S	MS	MS	R	R		MS	S	MS	S	S		R	R	R	R	R	R	R
43	BH 1018	S	S	MS	MS	MS		R	R	R	MR	R		MS	S	MR	S	R	S	R
44	BH 1019	S	S	MS	S	R		S	R	R	MS	S		R	R	R	R	R	R	R
45	BH 946	S	S	MS	S	S		R	R	R	MS	S		R	S	S	S	MX	R	R
46	PL 751	MS	S	R	MS	S		S	R	R	R	R		S	S	S	S	S	S	S
47	PL 890	S	S	S	MS	MS		R	R	R	R	R		S	S	R	R	R	R	R
48	PL 900	S	MS	MS	MS	MR		R	MR	R	MR	S		R	R	R	R	R	R	R
49	PL 902	S	MS	R	MR	R		S	S	MR	S	S		R	R	R	R	R	R	R
50	KB 1633	R	R	MS	R	R		MR	R	MR	S	S		MS	R	MR	MS	R	R	R
51	KB 1634	S	S	R	MS	R		MS	R	R	S	S		R	R	R	R	R	R	R
52	HUB 113	S	S	MS	MR	MS		MS	S	R	S	S		R	R	R	R	R	R	R
53	NDB 1698	S	S	MS	R	MR		S	R	S	MS	S		R	R	R	R	S	S	MX
54	VLB 130	R	R	R	R	R		R	R	R	MR	R		R	MS	R	R	R	R	R

55	VLB 153	R	R	R	R	R		R	R	MR	S	S		R	S	R	R	S	S	S
56	VLB 159	NG	NG	NG	NG	NG		NG	R	R	NG	NG		NG	NG	NG	NG	NG	NG	NG
57	UPB 1070	NG	NG	NG	NG	NG		MS	MR	R	R	NG		NG	NG	NG	NG	NG	NG	NG
58	UPB 1071	NG	NG	NG	NG	NG		NG	NG	NG	NG	NG		NG	NG	NG	NG	NG	NG	NG
59	UPB 1076	NG	NG	NG	NG	NG		NG	NG	NG	NG	NG		NG	NG	NG	NG	NG	MS	NG