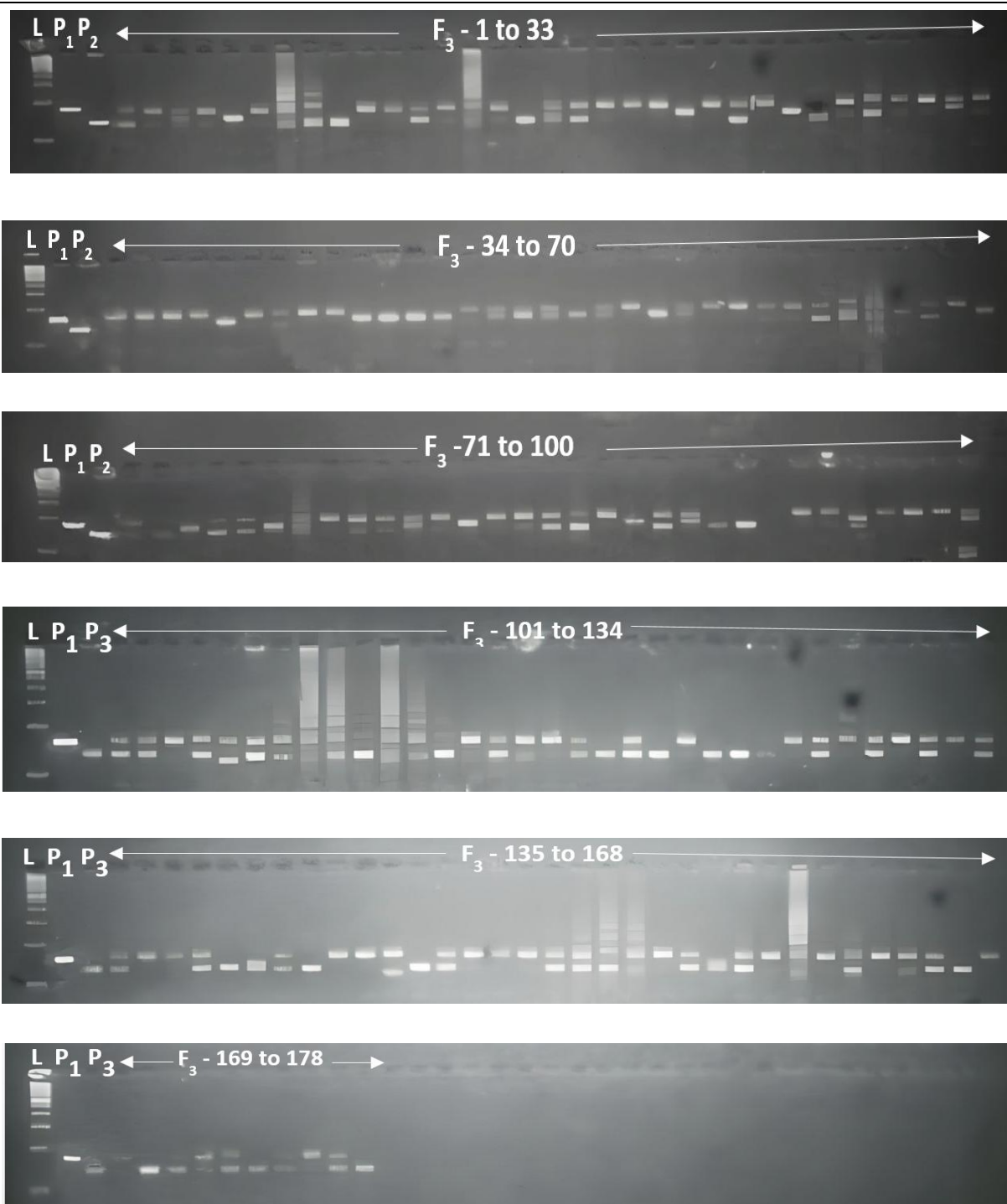
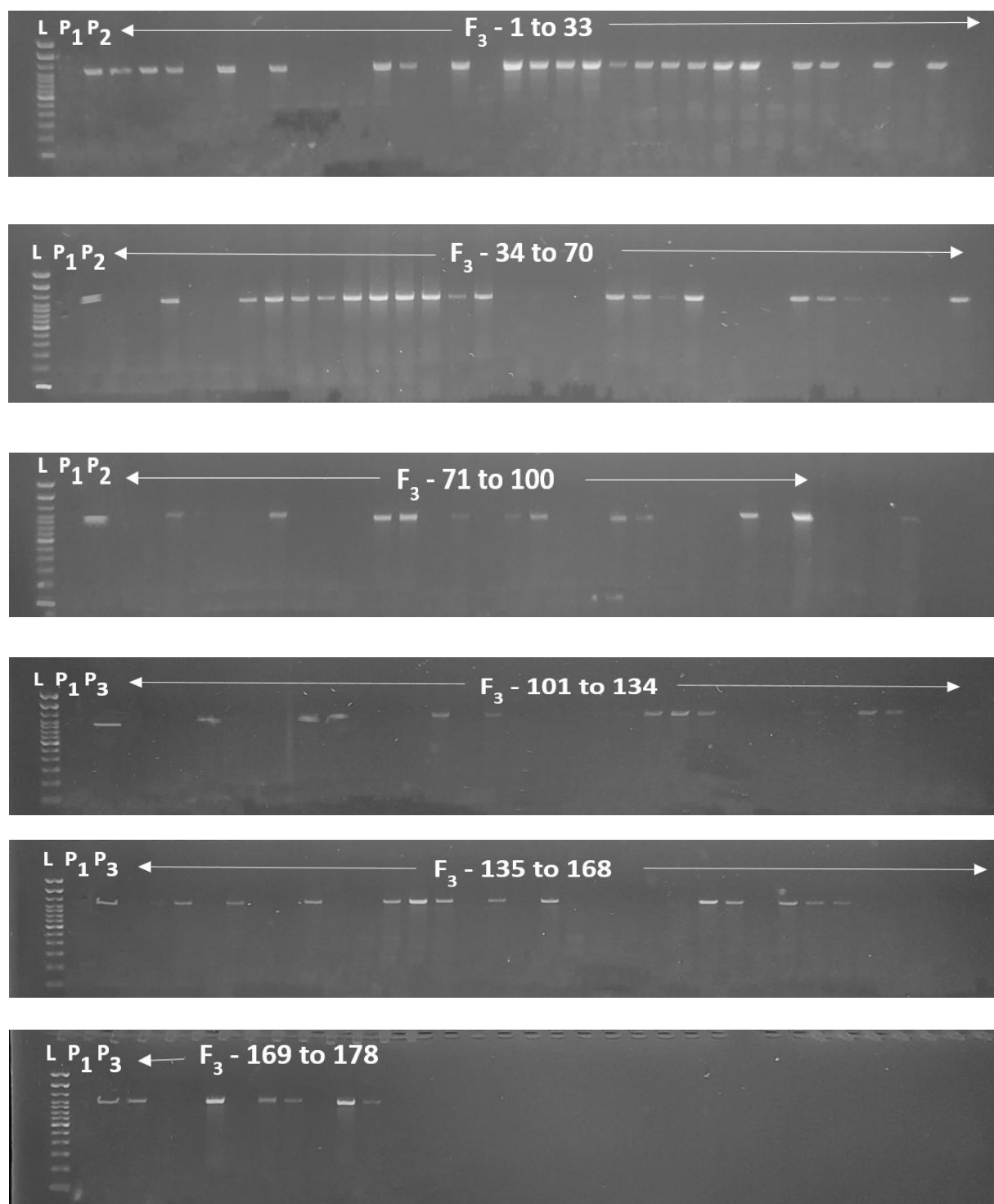


Supplementary Table 1. Details of the selected F₄ progenies for evaluation

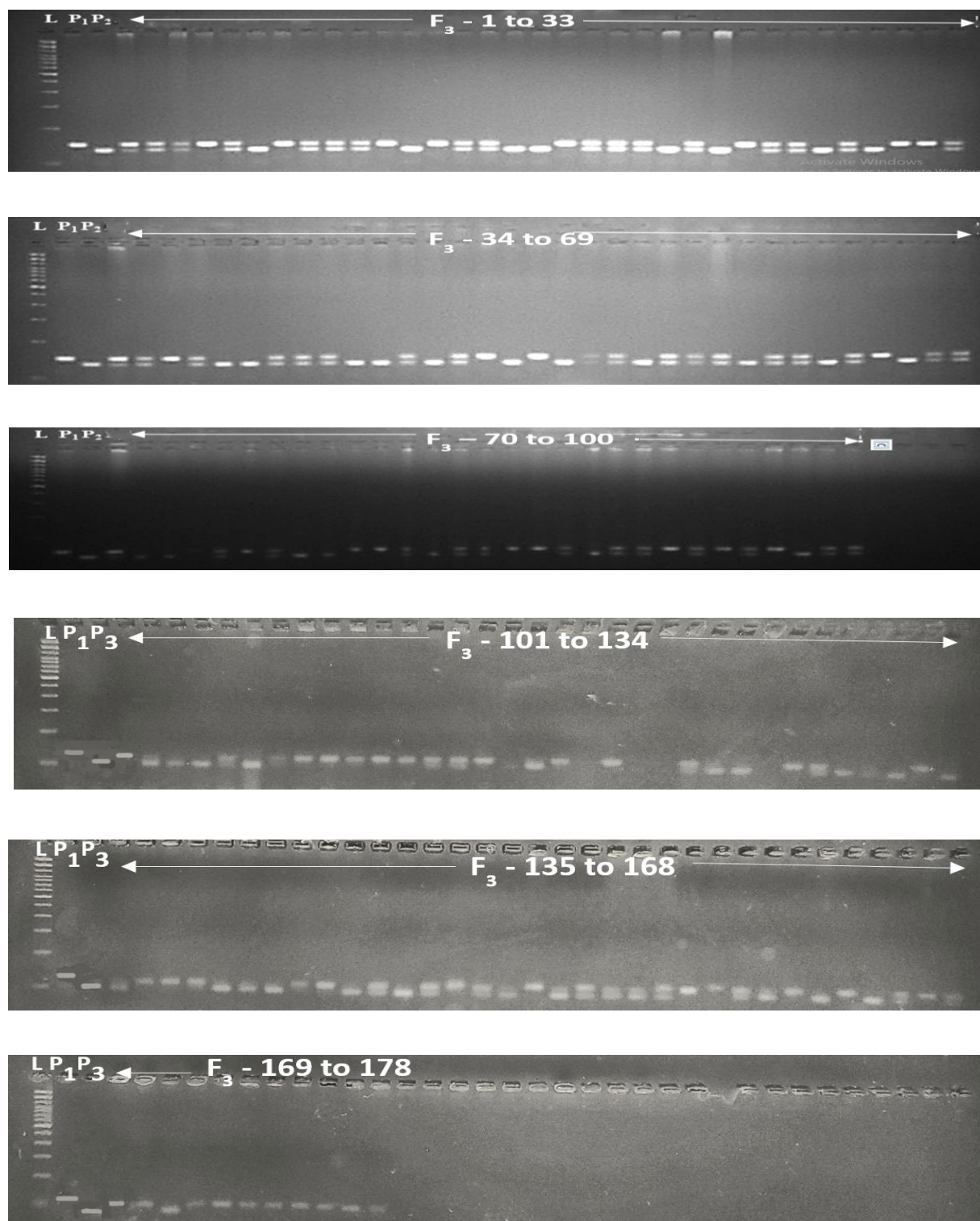
Sr. No.	Code F ₄ progenies (K-22)	Code F ₃ (S-22)	Pedigree
1	22KSMF4-1	22SSMF3-1	Gurjari × GNR-9
2	22KSMF4-2	22SSMF3-3	Gurjari × GNR-9
3	22KSMF4-3	22SSMF3-21	Gurjari × GNR-9
4	22KSMF4-4	22SSMF3-23	Gurjari × GNR-9
5	22KSMF4-5	22SSMF3-42	Gurjari × GNR-9
6	22KSMF4-6	22SSMF3-45	Gurjari × GNR-9
7	22KSMF4-7	22SSMF3-46	Gurjari × GNR-9
8	22KSMF4-8	22SSMF3-56	Gurjari × GNR-9
9	22KSMF4-9	22SSMF3-70	Gurjari × GNR-9
10	22KSMF4-10	22SSMF3-74	Gurjari × GNR-9
11	22KSMF4-11	22SSMF3-81	Gurjari × GNR-9
12	22KSMF4-12	22SSMF3-86	Gurjari × GNR-9
13	22KSMF4-13	22SSMF3-91	Gurjari × GNR-9
14	22KSMF4-14	22SSMF3-98	Gurjari × GNR-9
15	22KSMF4-15	22SSMF3-100	Gurjari × GNR-9
16	22KSMF4-16	22SSMF3-102	Gurjari × Tetep
17	22KSMF4-17	22SSMF3-104	Gurjari × Tetep
18	22KSMF4-18	22SSMF3-106	Gurjari × Tetep
19	22KSMF4-19	22SSMF3-107	Gurjari × Tetep
20	22KSMF4-20	22SSMF3-108	Gurjari × Tetep
21	22KSMF4-21	22SSMF3-110	Gurjari × Tetep
22	22KSMF4-22	22SSMF3-118	Gurjari × Tetep
23	22KSMF4-23	22SSMF3-120	Gurjari × Tetep
24	22KSMF4-24	22SSMF3-122	Gurjari × Tetep
25	22KSMF4-25	22SSMF3-128	Gurjari × Tetep
26	22KSMF4-26	22SSMF3-130	Gurjari × Tetep
27	22KSMF4-27	22SSMF3-131	Gurjari × Tetep
28	22KSMF4-28	22SSMF3-133	Gurjari × Tetep
29	22KSMF4-29	22SSMF3-134	Gurjari × Tetep
30	22KSMF4-30	22SSMF3-138	Gurjari × Tetep
31	22KSMF4-31	22SSMF3-140	Gurjari × Tetep
32	22KSMF4-32	22SSMF3-141	Gurjari × Tetep
33	22KSMF4-33	22SSMF3-154	Gurjari × Tetep
34	22KSMF4-34	22SSMF3-156	Gurjari × Tetep
35	22KSMF4-35	22SSMF3-159	Gurjari × Tetep
36	22KSMF4-36	22SSMF3-170	Gurjari × Tetep
37	GNR-9 ^{Check}	-	-
38	Lalkada ^{Check}	-	-
39	Tetep ^{Check}	-	-
40	Gurjari ^{Check}	-	-



Supplementary Fig. 1. Genotyping of F₃ progenies for blast resistant gene *Pi54/Pik^h* along with parents using marker RM206. Where, L: 100 bp ladder, P₁: Parent 1 (Gurjari), P₂: Parent 2 (GNR-9), P₃: Parent 3 (Tetep) and F₃: 178 F₃ selected progenies.



Supplementary Fig. 2. Genotyping of F₃ progenies for blast resistant gene *Pi67* along with parents using marker YL87/155. Where, L: 100 bp ladder, P₁: Parent 1 (Gurjari), P₂: Parent 2 (GNR-9), P₃: Parent 3 (Tetep) and F₃: 178 F₃ selected progenies.



Supplementary Fig. 3. Genotyping of F₃ progenies for blast resistant gene *Pitp(t)* along with parents using marker RM246. Where, L: 100 bp ladder, P₁: Parent 1 (Gurjari), P₂: Parent 2 (GNR-9), P₃: Parent 3 (Tetep) and F₃: 178 F₃ selected progenies.

Supplementary Table 2. Status of blast resistant genes in F₃ progenies

Sr. No.	Code F ₃ progenies	Pedigree	Season	Blast resistant genes		
				<i>Pi54/Pik^h</i> RM206	<i>Pi67</i> YL87/155	<i>Pitp(t)</i> RM246
1	22SSMF3-1	Gurjari × GNR-9	S-22	R	R	R
2	22SSMF3-2	Gurjari × GNR-9	S-22	S	R	R
3	22SSMF3-3	Gurjari × GNR-9	S-22	R	R	R
4	22SSMF3-4	Gurjari × GNR-9	S-22	S	-	S
5	22SSMF3-5	Gurjari × GNR-9	S-22	H	R	H
6	22SSMF3-6	Gurjari × GNR-9	S-22	H	-	S
7	22SSMF3-7	Gurjari × GNR-9	S-22	H	R	S
8	22SSMF3-8	Gurjari × GNR-9	S-22	H	-	R
9	22SSMF3-9	Gurjari × GNR-9	S-22	R	-	H
10	22SSMF3-10	Gurjari × GNR-9	S-22	S	-	S
11	22SSMF3-11	Gurjari × GNR-9	S-22	H	R	H
12	22SSMF3-12	Gurjari × GNR-9	S-22	S	R	S
13	22SSMF3-13	Gurjari × GNR-9	S-22	S	-	H
14	22SSMF3-14	Gurjari × GNR-9	S-22	H	-	S
15	22SSMF3-15	Gurjari × GNR-9	S-22	S	-	S
16	22SSMF3-16	Gurjari × GNR-9	S-22	H	R	S
17	22SSMF3-17	Gurjari × GNR-9	S-22	H	R	H
18	22SSMF3-18	Gurjari × GNR-9	S-22	S	-	S
19	22SSMF3-19	Gurjari × GNR-9	S-22	S	R	H
20	22SSMF3-20	Gurjari × GNR-9	S-22	S	R	S
21	22SSMF3-21	Gurjari × GNR-9	S-22	H	R	R
22	22SSMF3-22	Gurjari × GNR-9	S-22	S	R	R
23	22SSMF3-23	Gurjari × GNR-9	S-22	R	R	R
24	22SSMF3-24	Gurjari × GNR-9	S-22	H	R	H
25	22SSMF3-25	Gurjari × GNR-9	S-22	S	R	R
26	22SSMF3-26	Gurjari × GNR-9	S-22	H	-	S
27	22SSMF3-27	Gurjari × GNR-9	S-22	S	R	R
28	22SSMF3-28	Gurjari × GNR-9	S-22	S	-	R
29	22SSMF3-29	Gurjari × GNR-9	S-22	H	-	S
30	22SSMF3-30	Gurjari × GNR-9	S-22	S	R	S
31	22SSMF3-31	Gurjari × GNR-9	S-22	H	-	H
32	22SSMF3-32	Gurjari × GNR-9	S-22	H	-	H
33	22SSMF3-33	Gurjari × GNR-9	S-22	S	-	H
34	22SSMF3-34	Gurjari × GNR-9	S-22	S	-	H
35	22SSMF3-35	Gurjari × GNR-9	S-22	S	-	H
36	22SSMF3-36	Gurjari × GNR-9	S-22	H	R	H
37	22SSMF3-37	Gurjari × GNR-9	S-22	S	-	S
38	22SSMF3-38	Gurjari × GNR-9	S-22	R	-	S
39	22SSMF3-39	Gurjari × GNR-9	S-22	S	-	S
40	22SSMF3-40	Gurjari × GNR-9	S-22	S	R	H
41	22SSMF3-41	Gurjari × GNR-9	S-22	S	-	S
42	22SSMF3-42	Gurjari × GNR-9	S-22	R	R	R
43	22SSMF3-43	Gurjari × GNR-9	S-22	R	-	H
44	22SSMF3-44	Gurjari × GNR-9	S-22	S	-	R
45	22SSMF3-45	Gurjari × GNR-9	S-22	R	R	H
46	22SSMF3-46	Gurjari × GNR-9	S-22	R	R	R

47	22SSMF3-47	Gurjari × GNR-9	S-22	S	R	R
48	22SSMF3-48	Gurjari × GNR-9	S-22	S	R	S
49	22SSMF3-49	Gurjari × GNR-9	S-22	H	-	S
50	22SSMF3-50	Gurjari × GNR-9	S-22	H	R	H
51	22SSMF3-51	Gurjari × GNR-9	S-22	H	R	S
52	22SSMF3-52	Gurjari × GNR-9	S-22	R	-	S
53	22SSMF3-53	Gurjari × GNR-9	S-22	H	-	R
54	22SSMF3-54	Gurjari × GNR-9	S-22	S	-	S
55	22SSMF3-55	Gurjari × GNR-9	S-22	H	R	S
56	22SSMF3-56	Gurjari × GNR-9	S-22	H	R	R
57	22SSMF3-57	Gurjari × GNR-9	S-22	R	-	H
58	22SSMF3-58	Gurjari × GNR-9	S-22	S	R	H
59	22SSMF3-59	Gurjari × GNR-9	S-22	S	R	S
60	22SSMF3-60	Gurjari × GNR-9	S-22	S	-	R
61	22SSMF3-61	Gurjari × GNR-9	S-22	S	-	S
62	22SSMF3-62	Gurjari × GNR-9	S-22	H	R	S
63	22SSMF3-63	Gurjari × GNR-9	S-22	R	-	H
64	22SSMF3-64	Gurjari × GNR-9	S-22	S	-	S
65	22SSMF3-65	Gurjari × GNR-9	S-22	S	-	H
66	22SSMF3-66	Gurjari × GNR-9	S-22	H	-	H
67	22SSMF3-67	Gurjari × GNR-9	S-22	H	-	S
68	22SSMF3-68	Gurjari × GNR-9	S-22	S	-	S
69	22SSMF3-69	Gurjari × GNR-9	S-22	S	-	S
70	22SSMF3-70	Gurjari × GNR-9	S-22	R	R	R
71	22SSMF3-71	Gurjari × GNR-9	S-22	S	-	H
72	22SSMF3-72	Gurjari × GNR-9	S-22	H	-	H
73	22SSMF3-73	Gurjari × GNR-9	S-22	S	-	S
74	22SSMF3-74	Gurjari × GNR-9	S-22	R	R	R
75	22SSMF3-75	Gurjari × GNR-9	S-22	R	-	H
76	22SSMF3-76	Gurjari × GNR-9	S-22	R	-	H
77	22SSMF3-77	Gurjari × GNR-9	S-22	R	R	S
78	22SSMF3-78	Gurjari × GNR-9	S-22	H	-	S
79	22SSMF3-79	Gurjari × GNR-9	S-22	S	-	S
80	22SSMF3-80	Gurjari × GNR-9	S-22	S	-	S
81	22SSMF3-81	Gurjari × GNR-9	S-22	R	R	H
82	22SSMF3-82	Gurjari × GNR-9	S-22	S	R	H
83	22SSMF3-83	Gurjari × GNR-9	S-22	R	-	R
84	22SSMF3-84	Gurjari × GNR-9	S-22	S	-	H
85	22SSMF3-85	Gurjari × GNR-9	S-22	S	-	S
86	22SSMF3-86	Gurjari × GNR-9	S-22	R	R	R
87	22SSMF3-87	Gurjari × GNR-9	S-22	R	R	S
88	22SSMF3-88	Gurjari × GNR-9	S-22	S	-	S
89	22SSMF3-89	Gurjari × GNR-9	S-22	R	-	S
89	22SSMF3-89	Gurjari × GNR-9	S-22	R	-	S
90	22SSMF3-90	Gurjari × GNR-9	S-22	S	R	S
91	22SSMF3-91	Gurjari × GNR-9	S-22	R	R	H
92	22SSMF3-92	Gurjari × GNR-9	S-22	H	-	S
93	22SSMF3-93	Gurjari × GNR-9	S-22	H	-	S
94	22SSMF3-94	Gurjari × GNR-9	S-22	S	R	S

95	22SSMF3-95	Gurjari × GNR-9	S-22	S	-	H
96	22SSMF3-96	Gurjari × GNR-9	S-22	R	R	S
97	22SSMF3-97	Gurjari × GNR-9	S-22	S	-	S
98	22SSMF3-98	Gurjari × GNR-9	S-22	R	R	H
99	22SSMF3-99	Gurjari × GNR-9	S-22	S	R	H
100	22SSMF3-100	Gurjari × GNR-9	S-22	R	R	R
101	22SSMF3-101	Gurjari × Tetep	S-22	S	-	S
102	22SSMF3-102	Gurjari × Tetep	S-22	R	R	R
103	22SSMF3-103	Gurjari × Tetep	S-22	-	-	R
104	22SSMF3-104	Gurjari × Tetep	S-22	H	R	R
105	22SSMF3-105	Gurjari × Tetep	S-22	-	-	H
106	22SSMF3-106	Gurjari × Tetep	S-22	R	-	R
107	22SSMF3-107	Gurjari × Tetep	S-22	R	R	H
108	22SSMF3-108	Gurjari × Tetep	S-22	R	R	R
109	22SSMF3-109	Gurjari × Tetep	S-22	R	-	H
110	22SSMF3-110	Gurjari × Tetep	S-22	H	R	R
111	22SSMF3-111	Gurjari × Tetep	S-22	H	-	S
112	22SSMF3-112	Gurjari × Tetep	S-22	S	-	S
113	22SSMF3-113	Gurjari × Tetep	S-22	S	R	S
114	22SSMF3-114	Gurjari × Tetep	S-22	R	-	S
115	22SSMF3-115	Gurjari × Tetep	S-22	R	R	S
116	22SSMF3-116	Gurjari × Tetep	S-22	S	-	R
117	22SSMF3-117	Gurjari × Tetep	S-22	S	-	S
118	22SSMF3-118	Gurjari × Tetep	S-22	R	R	R
119	22SSMF3-119	Gurjari × Tetep	S-22	R	R	S
120	22SSMF3-120	Gurjari × Tetep	S-22	R	R	S
121	22SSMF3-121	Gurjari × Tetep	S-22	R	R	S
122	22SSMF3-122	Gurjari × Tetep	S-22	H	R	R
123	22SSMF3-123	Gurjari × Tetep	S-22	R	R	S
124	22SSMF3-124	Gurjari × Tetep	S-22	S	R	S
125	22SSMF3-125	Gurjari × Tetep	S-22	H		R
126	22SSMF3-126	Gurjari × Tetep	S-22	S	R	S
127	22SSMF3-127	Gurjari × Tetep	S-22	H		S
128	22SSMF3-128	Gurjari × Tetep	S-22	R	R	H
129	22SSMF3-129	Gurjari × Tetep	S-22	S		S
130	22SSMF3-130	Gurjari × Tetep	S-22	R	R	R
131	22SSMF3-131	Gurjari × Tetep	S-22	R	R	R
132	22SSMF3-132	Gurjari × Tetep	S-22	S		S
133	22SSMF3-133	Gurjari × Tetep	S-22	R		R
134	22SSMF3-134	Gurjari × Tetep	S-22	H	R	R
135	22SSMF3-135	Gurjari × Tetep	S-22	R		S
136	22SSMF3-136	Gurjari × Tetep	S-22	R	R	S
137	22SSMF3-137	Gurjari × Tetep	S-22	R	R	S
138	22SSMF3-138	Gurjari × Tetep	S-22	R	R	R
139	22SSMF3-139	Gurjari × Tetep	S-22	S	-	S
140	22SSMF3-140	Gurjari × Tetep	S-22	H	R	R
141	22SSMF3-141	Gurjari × Tetep	S-22	R	R	R
142	22SSMF3-142	Gurjari × Tetep	S-22	H	-	S
143	22SSMF3-143	Gurjari × Tetep	S-22	R	R	S

144	22SSMF3-144	Gurjari × Tetep	S-22	S	R	R
145	22SSMF3-145	Gurjari × Tetep	S-22	R	-	H
146	22SSMF3-146	Gurjari × Tetep	S-22	H	-	R
147	22SSMF3-147	Gurjari × Tetep	S-22	S	-	H
148	22SSMF3-148	Gurjari × Tetep	S-22	S	R	S
149	22SSMF3-149	Gurjari × Tetep	S-22	H	-	H
150	22SSMF3-150	Gurjari × Tetep	S-22	S	R	H
151	22SSMF3-151	Gurjari × Tetep	S-22	R	-	S
152	22SSMF3-152	Gurjari × Tetep	S-22	S	R	R
153	22SSMF3-153	Gurjari × Tetep	S-22	H	-	H
154	22SSMF3-154	Gurjari × Tetep	S-22	R	-	R
155	22SSMF3-155	Gurjari × Tetep	S-22	S	-	R
156	22SSMF3-156	Gurjari × Tetep	S-22	R	R	H
157	22SSMF3-157	Gurjari × Tetep	S-22	R	-	S
158	22SSMF3-158	Gurjari × Tetep	S-22	S	R	S
159	22SSMF3-159	Gurjari × Tetep	S-22	R	R	H
160	22SSMF3-160	Gurjari × Tetep	S-22	S	-	R
161	22SSMF3-161	Gurjari × Tetep	S-22	R	R	S
162	22SSMF3-162	Gurjari × Tetep	S-22	S	-	S
163	22SSMF3-163	Gurjari × Tetep	S-22	S	-	S
164	22SSMF3-164	Gurjari × Tetep	S-22	S	-	R
165	22SSMF3-165	Gurjari × Tetep	S-22	S	-	H
166	22SSMF3-166	Gurjari × Tetep	S-22	R	-	S
167	22SSMF3-167	Gurjari × Tetep	S-22	R	-	S
168	22SSMF3-168	Gurjari × Tetep	S-22	S	R	S
169	22SSMF3-169	Gurjari × Tetep	S-22	S	R	S
170	22SSMF3-170	Gurjari × Tetep	S-22	R	-	R
171	22SSMF3-171	Gurjari × Tetep	S-22	R	-	S
172	22SSMF3-172	Gurjari × Tetep	S-22	R	R	S
173	22SSMF3-173	Gurjari × Tetep	S-22	R	R	S
174	22SSMF3-174	Gurjari × Tetep	S-22	R	-	S
175	22SSMF3-175	Gurjari × Tetep	S-22	R	-	S
176	22SSMF3-176	Gurjari × Tetep	S-22	H	-	S
177	22SSMF3-177	Gurjari × Tetep	S-22	R	-	S
178	22SSMF3-178	Gurjari × Tetep	S-22	R	-	S

Where, R: Resistant for gene, S: Susceptible for gene, H: Heterozygous for gene,
“-”: Absent for gene, S-22: Summer 2022.

Supplementary Table 3. Eigen value, cumulative variance and factor loading of the five major factors obtained from the PCA of 13 quantitative traits

Variable	PC 1	PC 2	PC 3	PC 4	PC 5
Eigen value	3.76	2.40	1.90	1.42	1.17
% Variance	28.95	18.51	14.69	10.92	9.03
% Cumulative variance	28.95	47.46	62.15	73.07	82.1
DF	0.424	0.005	0.164	0.190	-0.391
DM	0.421	0.045	0.157	0.178	-0.397
PH	0.286	0.167	-0.213	-0.327	0.472
PL	0.032	0.530	0.041	-0.256	0.044
PTP	0.287	-0.082	0.082	0.541	0.310
GP	0.034	0.452	0.220	-0.201	-0.338
100 GW	-0.272	0.193	-0.116	0.014	-0.262
SYP	0.426	0.092	0.032	-0.033	0.234
HI	-0.307	0.313	0.174	0.239	0.064
KL	-0.230	0.159	-0.257	0.518	0.028
KB	-0.255	-0.062	0.538	0.084	0.159
L/B	0.050	0.182	-0.654	0.161	-0.168
GYP	0.083	0.522	0.137	0.260	0.270

Supplementary Table 4. PCA scores of 40 rice F₄ breeding lines

	PC 1	PC 2	PC 3	PC 4	PC 5	PC 6	PC 7	PC 8	PC 9	PC 10	PC 11	PC 12	PC 13
1	-1.288	1.134	2.163	-0.525	-2.002	0.314	-0.099	0.325	0.700	0.319	0.052	-0.090	-0.011
2	-0.582	1.836	0.732	-0.261	-0.841	-0.237	-0.639	-0.154	-0.590	-0.351	0.083	-0.324	-0.053
3	-0.178	0.517	-0.728	-0.286	-0.825	1.320	1.293	-0.306	-0.510	-0.375	-0.160	0.207	-0.008
4	-4.613	-1.397	-0.775	-1.053	-0.275	-0.532	-1.130	-0.922	-0.095	-0.065	-0.229	0.305	-0.048
5	-1.000	1.634	-0.197	0.995	0.340	-0.217	0.220	-0.670	-0.023	0.010	0.518	0.169	0.064
6	-0.997	1.957	1.394	0.320	0.490	0.997	-0.295	-0.114	-0.065	-0.107	-0.177	0.024	-0.024
7	-1.083	0.118	1.048	-0.109	0.193	-0.005	0.224	0.665	-0.522	0.125	-0.278	0.231	-0.026
8	-2.193	1.467	0.416	1.384	0.778	-0.973	1.016	0.606	-0.151	0.423	-0.144	-0.311	0.112
9	-3.471	-1.003	0.163	-0.356	0.431	0.604	-0.354	0.124	0.491	0.358	0.009	-0.043	0.082
10	-1.486	2.799	-3.860	0.398	-2.611	2.376	-0.985	0.713	0.250	0.646	-0.017	-0.091	-0.002
11	1.504	-0.609	0.383	-0.293	-0.429	1.402	0.653	-0.786	-0.832	-0.117	-0.158	0.055	0.150
12	0.056	-0.853	1.755	-1.484	-1.380	-0.383	-0.658	-1.289	0.442	-0.329	-0.431	-0.058	0.131
13	-1.787	-0.484	-1.112	-0.401	0.634	-0.042	-0.083	-0.241	-0.393	-0.115	0.431	-0.283	-0.107
14	1.378	2.528	0.782	1.869	0.671	-0.960	-0.632	0.956	-0.172	-0.334	-0.315	0.102	0.025
15	-1.373	0.394	-0.008	-0.264	0.577	0.709	1.284	0.547	-0.179	-0.124	0.036	0.028	0.054
16	3.066	-2.246	-0.095	-0.199	-0.928	0.045	-1.362	1.234	-0.061	-0.736	-0.167	-0.040	-0.040
17	0.547	-0.600	-0.959	-1.220	-0.178	-0.731	0.110	0.309	-0.728	0.409	-0.049	-0.234	-0.041
18	-0.225	-1.778	-1.795	0.466	-1.744	-1.427	1.088	0.706	-0.258	-0.778	-0.223	-0.095	-0.024
19	1.900	0.817	0.431	-0.348	0.811	-0.987	0.071	-0.036	0.574	0.666	0.132	-0.075	-0.034
20	4.035	-1.356	-0.269	-1.425	2.434	1.332	-0.822	0.348	-0.214	0.337	-0.182	-0.036	-0.012
21	1.159	-0.616	-1.984	-2.232	1.297	-0.218	0.648	-0.441	0.325	0.225	0.015	0.015	-0.059
22	0.096	-1.006	-0.500	1.784	1.412	0.347	-1.222	-1.401	-0.794	0.453	-0.026	-0.136	-0.012
23	1.288	0.401	-0.350	1.194	1.150	1.391	0.978	0.700	0.099	-0.466	0.162	0.113	-0.071
24	-1.818	-2.152	-1.174	0.901	0.648	0.345	0.593	-0.005	-0.510	-0.203	0.038	-0.091	-0.025
25	3.405	-1.790	-1.036	3.115	-0.967	0.051	0.429	-0.996	1.074	-0.274	-0.004	-0.111	-0.021
26	1.044	-1.511	-1.935	2.196	-0.140	-0.342	-0.366	-0.459	0.217	0.700	-0.101	0.293	0.033
27	3.730	0.149	0.992	0.459	-0.311	-0.584	0.248	0.379	0.187	0.574	0.012	0.149	0.027
28	2.478	-0.438	1.397	0.362	-1.219	0.098	-0.312	-0.345	-0.585	-0.048	0.298	-0.245	0.062
29	-0.685	-1.868	3.392	0.605	-1.508	-0.392	0.946	-0.172	-0.759	0.729	0.117	0.125	-0.121
30	0.631	0.230	2.143	-0.145	-0.627	-0.076	-1.155	0.228	0.378	-0.070	0.350	0.132	-0.101
31	0.849	3.336	-0.233	-0.576	0.834	-0.835	-0.922	0.010	-0.666	-0.117	-0.267	0.111	-0.017
32	-1.577	-0.379	0.408	1.130	0.227	-0.567	-0.562	0.887	-0.031	-0.160	0.411	0.083	0.109
33	-2.839	-1.347	1.718	0.846	1.269	0.696	0.403	0.432	0.694	0.007	-0.259	0.137	-0.068
34	-2.426	0.097	-0.132	1.037	1.904	-0.837	-0.621	-0.255	0.728	-0.606	-0.095	-0.232	0.002
35	0.765	0.248	0.829	-1.382	0.644	1.326	-0.227	-0.293	0.192	-0.805	0.519	0.172	0.059

36	1.491	3.211	-0.233	-0.635	-0.142	0.068	0.906	-0.560	0.692	-0.002	-0.222	-0.039	-0.074
37	-0.295	0.804	-2.348	-0.861	-0.991	-1.992	-0.046	-0.400	-0.049	-0.234	0.238	0.315	-0.014
38	0.617	1.485	0.441	-1.414	0.292	-0.407	1.164	-0.999	0.342	-0.092	-0.046	-0.142	-0.019
39	0.948	-0.905	-1.115	-1.987	0.517	-1.277	0.244	1.009	0.196	0.368	0.183	0.066	0.108
40	-1.070	-2.826	0.252	-1.607	-0.430	0.599	-0.025	0.665	0.604	0.159	-0.058	-0.157	0.013

Supplementary Table 5. Status of blast resistant genes in selected F₄ progenies

Plant No.	Code F ₄ progenies (K-22)	Code F ₃ progenies (S-22)	Pedigree	Blast resistant genes		
				RM206 (<i>Pi54/Pik^h</i>)	RM246 [<i>Pitp(t)</i>]	YL 87/155 (<i>Pi67</i>)
1	22KSMF4-1	22SSMF3-1	Gurjari × GNR-9	R	R	R
2	22KSMF4-2	22SSMF3-3	Gurjari × GNR-9	R	R	R
3				S	R	R
4	22KSMF4-3	22SSMF3-21	Gurjari × GNR-9	S	R	R
5				S	R	R
6	22KSMF4-4	22SSMF3-23	Gurjari × GNR-9	S	R	R
7	22KSMF4-5	22SSMF3-42	Gurjari × GNR-9	H	R	R
8				R	R	R
9	22KSMF4-6	22SSMF3-45	Gurjari × GNR-9	R	R	R
10				R	R	R
11	22KSMF4-7	22SSMF3-46	Gurjari × GNR-9	S	R	-
12				R	R	R
13	22KSMF4-8	22SSMF3-56	Gurjari × GNR-9	R	R	R
14				R	R	R
15	22KSMF4-9	22SSMF3-70	Gurjari × GNR-9	R	R	R
16	22KSMF4-10	22SSMF3-74	Gurjari × GNR-9	R	R	-
17				S	S	-
18	22KSMF4-11	22SSMF3-81	Gurjari × GNR-9	S	R	-
19				S	R	-
20	22KSMF4-12	22SSMF3-86	Gurjari × GNR-9	S	R	R
21				H	H	R
22	22KSMF4-13	22SSMF3-91	Gurjari × GNR-9	H	H	R
23				S	R	R
24				S	H	-
25	22KSMF4-14	22SSMF3-98	Gurjari × GNR-9	S	R	-
26				S	R	-
27	22KSMF4-15	22SSMF3-100	Gurjari × GNR-9	S	R	R

Plant No.	Code F ₄ progenies (K-22)	Code F ₃ progenies (S-22)	Pedigree	Blast resistant genes		
				RM206 (<i>Pi54</i>)	RM246 [<i>Pitp(t)</i>]	YL 87/155 (<i>Pi67</i>)
28	22KSMF4-16	22SSMF3-102	Gurjari × Tetep	R	R	R
29				R	R	R
30				R	R	R
31				R	R	R
32				H	R	-
33	22KSMF4-18	22SSMF3-106	Gurjari × Tetep	H	R	-
34				R	R	-
35				R	R	-
36				S	H	R
37	22KSMF4-19	22SSMF3-107	Gurjari × Tetep	S	H	R
38				S	R	R
39				R	R	-
40	22KSMF4-20	22SSMF3-108	Gurjari × Tetep	R	H	-
41				R	H	R
42	22KSMF4-21	22SSMF3-110	Gurjari × Tetep	R	R	R
43				R	R	R
44				R	H	-
45	22KSMF4-22	22SSMF3-118	Gurjari × Tetep	R	H	R
46				R	H	R
47				R	H	R
48				R	H	R
49				H	H	R
50	22KSMF4-23	22SSMF3-120	Gurjari × Tetep	H	H	R
51				S	H	R
52	22KSMF4-24	22SSMF3-122	Gurjari × Tetep	S	R	R
	22KSMF4-25	22SSMF3-128	Gurjari × Tetep	H	H	R
				S	H	R
	22KSMF4-26	22SSMF3-130	Gurjari × Tetep	S	R	R

Plant No.	Code F ₄ progenies (K-22)	Code F ₃ progenies (S-22)	Pedigree	Blast resistant genes		
				RM206 (Pi54)	RM246 [Pitp(t)]	YL 87/155 (Pi67)
53	22KSMF4-27	22SSMF3-131	Gurjari × Tetep	S	R	R
54				S	R	-
55	22KSMF4-28	22SSMF3-133	Gurjari × Tetep	H	R	-
56				H	R	-
57				H	R	R
58	22KSMF4-29	22SSMF3-134	Gurjari × Tetep	H	R	R
59				H	R	R
60	22KSMF4-30	22SSMF3-138	Gurjari × Tetep	H	R	R
61				H	H	R
62	22KSMF4-31	22SSMF3-140	Gurjari × Tetep	R	H	R
63				H	H	R
64	22KSMF4-32	22SSMF3-141	Gurjari × Tetep	R	R	R
65				R	H	-
66	22KSMF4-33	22SSMF3-151	Gurjari × Tetep	R	H	-
67				R	H	-
68				H	H	R
69	22KSMF4-34	22SSMF3-156	Gurjari × Tetep	S	H	R
70				H	H	R
71				S	H	R
72	22KSMF4-35	22SSMF3-159	Gurjari × Tetep	H	S	R
73				S	H	R
74				R	R	-
75	22KSMF4-36	22SSMF3-170	Gurjari × Tetep	R	H	-
76				H	R	-

Where, R: Resistant for blast gene, H: Heterozygous, S: Susceptible, ‘-’: Absent for blast gene, K-22: Kharif 2022, S-22: Summer 2022.