

Morpho-molecular screening of chickpea (*Cicer arietinum* L.) genotypes for resistance to *Botrytis* grey mould disease

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Supplementary Data

Suppl. Table 1 — List of chickpea genotypes used in *rabi*, 2017-18

S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source
1	PG 17-1	GBPUA&T	40	PG 17-47	GBPUA&T	79	PG 17-88	GBPUA&T	118	PG 17-128	GBPUA&T	157	PG 17-169	GBPUA&T	196	PG 17-208	GBPUA&T
2	PG 17-2	GBPUA&T	41	PG 17-48	GBPUA&T	80	PG 17-89	GBPUA&T	119	PG 17-129	GBPUA&T	158	PG 17-170	GBPUA&T	197	PG 17-209	GBPUA&T
3	PG 17-4	GBPUA&T	42	PG 17-49	GBPUA&T	81	PG 17-90	GBPUA&T	120	PG 17-130	GBPUA&T	159	PG 17-171	GBPUA&T	198	PG 17-210	GBPUA&T
4	PG 17-5	GBPUA&T	43	PG 17-50	GBPUA&T	82	PG 17-91	GBPUA&T	121	PG 17-131	GBPUA&T	160	PG 17-172	GBPUA&T	199	PG 17-211	GBPUA&T
5	PG 17-6	GBPUA&T	44	PG 17-51	GBPUA&T	83	PG 17-92	GBPUA&T	122	PG 17-132	GBPUA&T	161	PG 17-173	GBPUA&T	200	PG 17-212	GBPUA&T
6	PG 17-7	GBPUA&T	45	PG 17-52	GBPUA&T	84	PG 17-93	GBPUA&T	123	PG 17-133	GBPUA&T	162	PG 17-174	GBPUA&T	201	PG 17-213	GBPUA&T
7	PG 17-8	GBPUA&T	46	PG 17-53	GBPUA&T	85	PG 17-94	GBPUA&T	124	PG 17-134	GBPUA&T	163	PG 17-175	GBPUA&T	202	PG 17-214	GBPUA&T
8	PG 17-9	GBPUA&T	47	PG 17-54	GBPUA&T	86	PG 17-95	GBPUA&T	125	PG 17-135	GBPUA&T	164	PG 17-176	GBPUA&T	203	PG 17-215	GBPUA&T
9	PG 17-10	GBPUA&T	48	PG 17-55	GBPUA&T	87	PG 17-96	GBPUA&T	126	PG 17-136	GBPUA&T	165	PG 17-177	GBPUA&T	204	PG 17-216	GBPUA&T
10	PG 17-13	GBPUA&T	49	PG 17-56	GBPUA&T	88	PG 17-97	GBPUA&T	127	PG 17-137	GBPUA&T	166	PG 17-178	GBPUA&T	205	PG 17-217	GBPUA&T
11	PG 17-14	GBPUA&T	50	PG 17-57	GBPUA&T	89	PG 17-99	GBPUA&T	128	PG 17-138	GBPUA&T	167	PG 17-179	GBPUA&T	206	PG 17-218	GBPUA&T
12	PG 17-15	GBPUA&T	51	PG 17-58	GBPUA&T	90	PG 17-100	GBPUA&T	129	PG 17-139	GBPUA&T	168	PG 17-180	GBPUA&T	207	PG 17-219	GBPUA&T
13	PG 17-16	GBPUA&T	52	PG 17-59	GBPUA&T	91	PG 17-101	GBPUA&T	130	PG 17-140	GBPUA&T	169	PG 17-181	GBPUA&T	208	PG 17-220	GBPUA&T
14	PG 17-19	GBPUA&T	53	PG 17-60	GBPUA&T	92	PG 17-102	GBPUA&T	131	PG 17-141	GBPUA&T	170	PG 17-182	GBPUA&T	209	PG 17-221	GBPUA&T
15	PG 17-20	GBPUA&T	54	PG 17-61	GBPUA&T	93	PG 17-103	GBPUA&T	132	PG 17-142	GBPUA&T	171	PG 17-183	GBPUA&T	210	PG 17-222	GBPUA&T
16	PG 17-21	GBPUA&T	55	PG 17-62	GBPUA&T	94	PG 17-104	GBPUA&T	133	PG 17-143	GBPUA&T	172	PG 17-184	GBPUA&T	211	PG 17-223	GBPUA&T
17	PG 17-22	GBPUA&T	56	PG 17-63	GBPUA&T	95	PG 17-105	GBPUA&T	134	PG 17-144	GBPUA&T	173	PG 17-185	GBPUA&T	212	PG 17-224	GBPUA&T
18	PG 17-23	GBPUA&T	57	PG 17-64	GBPUA&T	96	PG 17-106	GBPUA&T	135	PG 17-145	GBPUA&T	174	PG 17-186	GBPUA&T	213	PG 17-225	GBPUA&T
19	PG 17-24	GBPUA&T	58	PG 17-65	GBPUA&T	97	PG 17-107	GBPUA&T	136	PG 17-146	GBPUA&T	175	PG 17-187	GBPUA&T	214	PG 17-226	GBPUA&T
20	PG 17-25	GBPUA&T	59	PG 17-66	GBPUA&T	98	PG 17-108	GBPUA&T	137	PG 17-147	GBPUA&T	176	PG 17-188	GBPUA&T	215	PG 17-227	GBPUA&T
21	PG 17-26	GBPUA&T	60	PG 17-68	GBPUA&T	99	PG 17-109	GBPUA&T	138	PG 17-148	GBPUA&T	177	PG 17-189	GBPUA&T	216	PG 17-228	GBPUA&T
22	PG 17-27	GBPUA&T	61	PG 17-69	GBPUA&T	100	PG 17-110	GBPUA&T	139	PG 17-149	GBPUA&T	178	PG 17-190	GBPUA&T	217	PG 17-229	GBPUA&T

(Contd.)

Suppl. Table 1 — List of chickpea genotypes used in *rabi*, 2017-18

S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source
23	PG 17-28	GBPUA&T	62	PG 17-70	GBPUA&T	101	PG 17-111	GBPUA&T	140	PG 17-150	GBPUA&T	179	PG 17-191	GBPUA&T	218	PG 17-230	GBPUA&T
24	PG 17-29	GBPUA&T	63	PG 17-71	GBPUA&T	102	PG 17-112	GBPUA&T	141	PG 17-151	GBPUA&T	180	PG 17-192	GBPUA&T	219	PG 17-231	GBPUA&T
25	PG 17-30	GBPUA&T	64	PG 17-72	GBPUA&T	103	PG 17-113	GBPUA&T	142	PG 17-152	GBPUA&T	181	PG 17-193	GBPUA&T	220	PG 17-232	GBPUA&T
26	PG 17-31	GBPUA&T	65	PG 17-73	GBPUA&T	104	PG 17-114	GBPUA&T	143	PG 17-153	GBPUA&T	182	PG 17-194	GBPUA&T	221	PG 17-233	GBPUA&T
27	PG 17-32	GBPUA&T	66	PG 17-74	GBPUA&T	105	PG 17-115	GBPUA&T	144	PG 17-154	GBPUA&T	183	PG 17-195	GBPUA&T	222	PG 17-234	GBPUA&T
28	PG 17-33	GBPUA&T	67	PG 17-75	GBPUA&T	106	PG 17-116	GBPUA&T	145	PG 17-155	GBPUA&T	184	PG 17-196	GBPUA&T	223	PG 17-235	GBPUA&T
29	PG 17-34	GBPUA&T	68	PG 17-76	GBPUA&T	107	PG 17-117	GBPUA&T	146	PG 17-156	GBPUA&T	185	PG 17-197	GBPUA&T	224	PG 17-236	GBPUA&T
30	PG 17-35	GBPUA&T	69	PG 17-77	GBPUA&T	108	PG 17-118	GBPUA&T	147	PG 17-157	GBPUA&T	186	PG 17-198	GBPUA&T	225	PG 17-237	GBPUA&T
31	PG 17-36	GBPUA&T	70	PG 17-78	GBPUA&T	109	PG 17-119	GBPUA&T	148	PG 17-159	GBPUA&T	187	PG 17-199	GBPUA&T	226	PG3	GBPUA&T
32	PG 17-37	GBPUA&T	71	PG 17-79	GBPUA&T	110	PG 17-120	GBPUA&T	149	PG 17-160	GBPUA&T	188	PG 17-200	GBPUA&T	227	PG5	GBPUA&T
33	PG 17-38	GBPUA&T	72	PG 17-80	GBPUA&T	111	PG 17-121	GBPUA&T	150	PG 17-161	GBPUA&T	189	PG 17-201	GBPUA&T	228	H 208	CCSHAU, Hisar
34	PG 17-39	GBPUA&T	73	PG 17-81	GBPUA&T	112	PG 17-122	GBPUA&T	151	PG 17-162	GBPUA&T	190	PG 17-202	GBPUA&T	229	DCP-92-3	IIPR, Kanpur
35	PG 17-40	GBPUA&T	74	PG 17-82	GBPUA&T	113	PG 17-123	GBPUA&T	152	PG 17-163	GBPUA&T	191	PG 17-203	GBPUA&T	230	GL 10006	PAU, Ludhiana
36	PG 17-41	GBPUA&T	75	PG 17-83	GBPUA&T	114	PG 17-124	GBPUA&T	153	PG 17-164	GBPUA&T	192	PG 17-204	GBPUA&T			
37	PG 17-44	GBPUA&T	76	PG 17-84	GBPUA&T	115	PG 17-125	GBPUA&T	154	PG 17-165	GBPUA&T	193	PG 17-205	GBPUA&T			
38	PG 17-45	GBPUA&T	77	PG 17-86	GBPUA&T	116	PG 17-126	GBPUA&T	155	PG 17-167	GBPUA&T	194	PG 17-206	GBPUA&T			
39	PG 17-46	GBPUA&T	78	PG 17-87	GBPUA&T	117	PG 17-127	GBPUA&T	156	PG 17-168	GBPUA&T	195	PG 17-207	GBPUA&T			

Suppl. Table 2 — List of chickpea genotypes used in *rabi*, 2018-19

S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source
1	PG 17-1	GBPUA&T	29	PG 17-84	GBPUA&T	57	PG 17-132	GBPUA&T	85	PG 17-168	GBPUA&T	113	PG 17-205	GBPUA&T
2	PG 17-4	GBPUA&T	30	PG 17-88	GBPUA&T	58	PG 17-133	GBPUA&T	86	PG 17-170	GBPUA&T	114	PG 17-206	GBPUA&T
3	PG 17-5	GBPUA&T	31	PG 17-89	GBPUA&T	59	PG 17-134	GBPUA&T	87	PG 17-171	GBPUA&T	115	PG 17-207	GBPUA&T
4	PG 17-8	GBPUA&T	32	PG 17-90	GBPUA&T	60	PG 17-135	GBPUA&T	88	PG 17-172	GBPUA&T	116	PG 17-208	GBPUA&T
5	PG 17-9	GBPUA&T	33	PG 17-100	GBPUA&T	61	PG 17-137	GBPUA&T	89	PG 17-173	GBPUA&T	117	PG 17-209	GBPUA&T
6	PG 17-13	GBPUA&T	34	PG 17-101	GBPUA&T	62	PG 17-138	GBPUA&T	90	PG 17-175	GBPUA&T	118	PG 17-210	GBPUA&T
7	PG 17-16	GBPUA&T	35	PG 17-102	GBPUA&T	63	PG 17-139	GBPUA&T	91	PG 17-177	GBPUA&T	119	PG 17-211	GBPUA&T
8	PG 17-20	GBPUA&T	36	PG 17-107	GBPUA&T	64	PG 17-140	GBPUA&T	92	PG 17-179	GBPUA&T	120	PG 17-212	GBPUA&T
9	PG 17-24	GBPUA&T	37	PG 17-108	GBPUA&T	65	PG 17-142	GBPUA&T	93	PG 17-180	GBPUA&T	121	PG 17-213	GBPUA&T
10	PG 17-27	GBPUA&T	38	PG 17-110	GBPUA&T	66	PG 17-143	GBPUA&T	94	PG 17-181	GBPUA&T	122	PG 17-216	GBPUA&T
11	PG 17-33	GBPUA&T	39	PG 17-111	GBPUA&T	67	PG 17-144	GBPUA&T	95	PG 17-182	GBPUA&T	123	PG 17-217	GBPUA&T
12	PG 17-35	GBPUA&T	40	PG 17-112	GBPUA&T	68	PG 17-145	GBPUA&T	96	PG 17-183	GBPUA&T	124	PG 17-218	GBPUA&T
13	PG 17-48	GBPUA&T	41	PG 17-113	GBPUA&T	69	PG 17-146	GBPUA&T	97	PG 17-184	GBPUA&T	125	PG 17-220	GBPUA&T
14	PG 17-49	GBPUA&T	42	PG 17-114	GBPUA&T	70	PG 17-147	GBPUA&T	98	PG 17-186	GBPUA&T	126	PG 17-221	GBPUA&T
15	PG 17-53	GBPUA&T	43	PG 17-116	GBPUA&T	71	PG 17-148	GBPUA&T	99	PG 17-187	GBPUA&T	127	PG 17-226	GBPUA&T
16	PG 17-54	GBPUA&T	44	PG 17-117	GBPUA&T	72	PG 17-150	GBPUA&T	100	PG 17-188	GBPUA&T	128	PG 17-227	GBPUA&T
17	PG 17-58	GBPUA&T	45	PG 17-118	GBPUA&T	73	PG 17-151	GBPUA&T	101	PG 17-189	GBPUA&T	129	PG 17-228	GBPUA&T
18	PG 17-59	GBPUA&T	46	PG 17-119	GBPUA&T	74	PG 17-152	GBPUA&T	102	PG 17-190	GBPUA&T	130	PG 17-229	GBPUA&T
19	PG 17-63	GBPUA&T	47	PG 17-120	GBPUA&T	75	PG 17-153	GBPUA&T	103	PG 17-191	GBPUA&T	131	PG 17-230	GBPUA&T
20	PG 17-68	GBPUA&T	48	PG 17-121	GBPUA&T	76	PG 17-154	GBPUA&T	104	PG 17-192	GBPUA&T	132	PG 17-231	GBPUA&T
21	PG 17-69	GBPUA&T	49	PG 17-122	GBPUA&T	77	PG 17-155	GBPUA&T	105	PG 17-193	GBPUA&T	133	PG 17-233	GBPUA&T
22	PG 17-70	GBPUA&T	50	PG 17-123	GBPUA&T	78	PG 17-156	GBPUA&T	106	PG 17-196	GBPUA&T	134	PG 17-234	GBPUA&T
23	PG 17-71	GBPUA&T	51	PG 17-125	GBPUA&T	79	PG 17-157	GBPUA&T	107	PG 17-197	GBPUA&T	135	PG 17-235	GBPUA&T
24	PG 17-72	GBPUA&T	52	PG 17-126	GBPUA&T	80	PG 17-159	GBPUA&T	108	PG 17-198	GBPUA&T	136	PG3	GBPUA&T
25	PG 17-74	GBPUA&T	53	PG 17-127	GBPUA&T	81	PG 17-160	GBPUA&T	109	PG 17-201	GBPUA&T	137	PG5	GBPUA&T
26	PG 17-76	GBPUA&T	54	PG 17-128	GBPUA&T	82	PG 17-161	GBPUA&T	110	PG 17-202	GBPUA&T	138	H 208	CCSHAU, Hisar
27	PG 17-82	GBPUA&T	55	PG 17-129	GBPUA&T	83	PG 17-165	GBPUA&T	111	PG 17-203	GBPUA&T	139	DCP-92-3	IIPR, Kanpur
28	PG 17-83	GBPUA&T	56	PG 17-130	GBPUA&T	84	PG 17-167	GBPUA&T	112	PG 17-204	GBPUA&T	140	GL 10006	PAU, Ludhiana

Suppl. Table3 — List of chickpea genotypes used in *rabi*, 2019-20

S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source	S. No	Name of the genotypes	Source
1	PG 17-1	GBPUA&T	22	PG 17-83	GBPUA&T	43	PG 17-134	GBPUA&T	64	PG 17-170	GBPUA&T	85	PG 17-206	GBPUA&T
2	PG 17-4	GBPUA&T	23	PG 17-84	GBPUA&T	44	PG 17-135	GBPUA&T	65	PG 17-172	GBPUA&T	86	PG 17-207	GBPUA&T
3	PG 17-5	GBPUA&T	24	PG 17-88	GBPUA&T	45	PG 17-137	GBPUA&T	66	PG 17-173	GBPUA&T	87	PG 17-208	GBPUA&T
4	PG 17-9	GBPUA&T	25	PG 17-89	GBPUA&T	46	PG 17-139	GBPUA&T	67	PG 17-175	GBPUA&T	88	PG 17-209	GBPUA&T
5	PG 17-20	GBPUA&T	26	PG 17-90	GBPUA&T	47	PG 17-140	GBPUA&T	68	PG 17-179	GBPUA&T	89	PG 17-210	GBPUA&T
6	PG 17-27	GBPUA&T	27	PG 17-100	GBPUA&T	48	PG 17-143	GBPUA&T	69	PG 17-180	GBPUA&T	90	PG 17-212	GBPUA&T
7	PG 17-35	GBPUA&T	28	PG 17-112	GBPUA&T	49	PG 17-144	GBPUA&T	70	PG 17-181	GBPUA&T	91	PG 17-213	GBPUA&T
8	PG 17-48	GBPUA&T	29	PG 17-113	GBPUA&T	50	PG 17-145	GBPUA&T	71	PG 17-182	GBPUA&T	92	PG 17-216	GBPUA&T
9	PG 17-49	GBPUA&T	30	PG 17-117	GBPUA&T	51	PG 17-146	GBPUA&T	72	PG 17-183	GBPUA&T	93	PG 17-218	GBPUA&T
10	PG 17-53	GBPUA&T	31	PG 17-118	GBPUA&T	52	PG 17-147	GBPUA&T	73	PG 17-184	GBPUA&T	94	PG 17-220	GBPUA&T
11	PG 17-54	GBPUA&T	32	PG 17-119	GBPUA&T	53	PG 17-148	GBPUA&T	74	PG 17-187	GBPUA&T	95	PG 17-221	GBPUA&T
12	PG 17-58	GBPUA&T	33	PG 17-120	GBPUA&T	54	PG 17-150	GBPUA&T	75	PG 17-189	GBPUA&T	96	PG 17-226	GBPUA&T
13	PG 17-59	GBPUA&T	34	PG 17-121	GBPUA&T	55	PG 17-151	GBPUA&T	76	PG 17-190	GBPUA&T	97	PG 17-230	GBPUA&T
14	PG 17-63	GBPUA&T	35	PG 17-123	GBPUA&T	56	PG 17-152	GBPUA&T	77	PG 17-191	GBPUA&T	98	PG 17-233	GBPUA&T
15	PG 17-68	GBPUA&T	36	PG 17-125	GBPUA&T	57	PG 17-155	GBPUA&T	78	PG 17-193	GBPUA&T	99	PG 17-234	GBPUA&T
16	PG 17-69	GBPUA&T	37	PG 17-126	GBPUA&T	58	PG 17-156	GBPUA&T	79	PG 17-196	GBPUA&T	100	PG 17-235	GBPUA&T
17	PG 17-71	GBPUA&T	38	PG 17-127	GBPUA&T	59	PG 17-157	GBPUA&T	80	PG 17-197	GBPUA&T	101	PG3	GBPUA&T
18	PG 17-72	GBPUA&T	39	PG 17-128	GBPUA&T	60	PG 17-160	GBPUA&T	81	PG 17-198	GBPUA&T	102	PG5	GBPUA&T
19	PG 17-74	GBPUA&T	40	PG 17-129	GBPUA&T	61	PG 17-161	GBPUA&T	82	PG 17-201	GBPUA&T	103	H 208	CCSHAU, Hisar
20	PG 17-76	GBPUA&T	41	PG 17-132	GBPUA&T	62	PG 17-165	GBPUA&T	83	PG 17-202	GBPUA&T	104	DCP-92-3	IIPR, Kanpur
21	PG 17-82	GBPUA&T	42	PG 17-133	GBPUA&T	63	PG 17-168	GBPUA&T	84	PG 17-205	GBPUA&T	105	GL 10006	PAU, Ludhiana

Suppl. Table 4 — List of chickpea genotypes used for molecular screening

S.No	Genotype	Source
1	GL10006 (Check)	PAU, Ludhiana
2	PG 3 (Check)	GBPUA&T
3	PG 5 (Check)	GBPUA&T
4	DCP 92-3 (Check)	IIPR, Kanpur
5	H 208 (Check)	CCS,HAU, Hisar
6	PG 17-1	GBPUA&T
7	PG 17-4	GBPUA&T
8	PG 17-9	GBPUA&T
9	PG 17-83	GBPUA&T
10	PG 17-89	GBPUA&T
11	PG 17-119	GBPUA&T
12	PG 17-120	GBPUA&T
13	PG 17-121	GBPUA&T
14	PG 17-123	GBPUA&T
15	PG 17-145	GBPUA&T
16	PG 17-146	GBPUA&T
17	PG 17-151	GBPUA&T
18	PG 17-152	GBPUA&T
19	PG 17-173	GBPUA&T
20	PG 17-175	GBPUA&T
21	PG 17-179	GBPUA&T
22	PG 17-205	GBPUA&T
23	PG 17-206	GBPUA&T
24	PG 17-212	GBPUA&T
25	PG 17-233	GBPUA&T

Suppl. Table 5 — Characteristics of microsatellite/ STMS markers used for molecular studies

S.No.	Primer Name	Primer Sequence (5'-3')	OD	%GC	Tm
1.	TA2F	AAATGGAAGAAGAATAAAAACGAAAC	15.1	26.92	55.3
	TA2R	TTCCATTCTTTATTATCCATATCACTA	20.9	27.59	58.2
2.	TA5F	ATCATTCAATTTCCTCAACTATGAAT	12.0	26.00	59.2
	TA5R	TCGTTAACACGTAATTTCAAGTAAAGAT	7.7	29.00	61.5
3.	TA25F	AGTTTAATTGGCTGGTTCTAAGATAAC	16.4	33.33	58.9
	TA25R	AGGATGATCTTTAATAAATCAGAATGA	17.6	25.93	55.9
4.	TA28F	TAATTGATCATACTCTCACTATCTGCC	5.5	37.00	63.7
	TA28R	TGGGAATGAATATATTTTTGAAGTAAA	8.2	22.00	57.6
5.	TA34F	AAGAGTTGTTCCCTTTCTTTT	5.6	33.00	58.4
	TA34R	CCATTATCATTCTGTTTTCAA	5.0	27.00	53.4
6.	TA43F	GGTTGTGGTCTCCAGATTTT	6.0	40.00	54.3
	TA43R	AAGAGTTGTTGGAGAGCAA	12.0	42.00	53.0
7.	TA47F	TTTTTATAGGTGTTCTTTTTGTGTCTTT	7.9	25.00	59.9
	TA47R	TCTGAATAGGAAATAAGAAAGGTAGGTT	7.3	32.00	62.7
8.	TA64F	ATATATCGTAACTCAATATCCTCCGC	8.4	33.00	62.1
	TA64R	AAATTGTTGTCATCAAATGGAAAAATA	8.3	23.00	56.8
9.	TA72F	GAAAGATTTAAAAGATTTTCCACGTTA	12.5	26.00	59.5
	TA72R	TTAGAAGCATATTGTTGGGATAAGAGT	9.6	33.00	62.1
10.	TA110F	ACACTATAGGTATAGGCATTTAGGCAA	14.9	37.04	60.4
	TA110R	TTCTTTATAAATATCAGACCGGAAAGA	15.5	29.63	57.4
11.	TA118F	ACAAGTCACATGTGTTCTCAATA	14.8	34.78	55.3
	TA118R	GGAAAGGTTAAGAAATTTACAATAC	18.2	26.92	55.3
12.	TA144F	TATTTAATCCGGTGAATATTACCTTT	16.2	25.93	55.9
	TA144R	GTGGAGTCACTATCAACAATCATACT	20.6	37.04	60.4
13.	TA203F	ATAAAGGTTTGATCCCAT	12.0	35.00	52.3
	TA203R	TGTGCATTCAAGATACATGCT	5.0	40.00	54.3
14.	TAA137F	CATGATTTCCAACATAAATCTGAAAGT	6.1	30.00	60.8
	TAA137R	TCTGTTTCGTTTAAACAATTTCTTCT	8.0	26.00	59.2
15.	TR20F	ACCTGCTTGTTTAGCACAAAT	9.1	40.00	54.3
	TA20R	CCGCATAGCAATTTATCTTC	5.2	40.00	54.3
16.	TR29F	GCCCACTGAAAAATAAAAAAG	12.2	51.2	35
	TR29R	ATTTGAACCTCAAGTTCTCG	14.1	53.2	40
17.	TR43F	AGGACGAAACTATTCAAGGTAAAGTAGA	12.2	37.00	63.7
	TR43R	AATTGAGATGGTATTAATGGATAACG	7.3	30.00	60.8
18.	TS12F	CTTAAATAATAAAATCCTAAATAAT	11.3	12.00	51.0
	TS12R	TAATCATATGAGAATCTTAGAATATCAC	10.0	25.00	59.9
19.	TS29F	AACATTCATGAACCTACCTCAACTTA	6.6	35.00	61.7
	TS29R	CCATATATGAGTACACTACCTCTCGG	5.0	46.00	66.2
20.	TS57F	TCAATTTATAATCATAGAGAATCNGAGA	18.2	26.79	57.1
	TS57R	CCTAAAACAAATAAAAATCTTAAATAATA	20.0	14.29	51.9
21.	TS72F	CAAACAATCACTAAAAGTATTTGCTCT	5.0	30.00	60.8
	TS72R	AAAAATTGATGGACAAGTGTTATTATG	10.7	26.00	59.2
22.	CaSTMS7F	GAGGATTCGGATTCAGAT	11.4	44.44	51.4
	CaSTMS7R	AAAATCTTGGAAGTGATTGAG	12.7	33.33	52.0
23.	CaSTMS23F	GATGAAGATAAAAGC ATAATTAAGG	11.7	28.00	57.6
	CaSTMS23R	TTTCTTCTTCTATGATACACACACT	8.5	32.00	59.2
24.	CaSTMS24F	AAAGACAGGTTTTAATCCAAAA	14.6	27.27	50.9
	CaSTMS24R	CTAATCTTTCTTCTTTTGTGCAT	17.9	28.0	54.8
25.	ICCM0068F	TCTTCTTTGCTATCTGTCTCGC	4.8	45.00	60.1
	ICCM0068R	TGCATGTCAAACATTAGACAACCTT	7.4	32.00	59.2