

Supplementary Table 1 Mean morphophysiological and yield data of genotypes

Variety	Accession details	FLA	TCC	P <sub>N</sub>	g <sub>s</sub>	E	TB	GY	PR	CS
IG-001	CR 3562-2-1-1-1-1-1	52.51	2.45	13.79	0.46	5.10	12.13	4.72	0.14	25.36
IG-002	CR 3564-1-1-3-1-1-1	43.28	1.66	15.60	0.68	6.05	16.89	7.90	0.19	25.83
IG-003	CR 3506-3-3-1-1-1-1	38.27	1.80	15.16	0.48	4.08	18.83	6.86	0.16	27.55
IG-004	CR 3561-3-2-1-1-1-1	37.39	1.66	14.47	0.19	1.80	12.35	5.01	0.38	46.34
IG-005 (NGR)	CR 3741-1-1-2-1-2-1	26.12	2.04	12.81	0.39	5.77	16.11	6.70	0.26	48.01
IG-006	CR 3564-7-2-1-1-1-1	44.24	3.35	16.08	0.61	6.02	11.46	4.94	0.22	39.46
IG-007	CR 3561-3-2-1-1-1-1	39.57	3.71	18.71	0.73	6.10	13.02	4.46	0.18	32.08
IG-008 (NGR)	CR 4113-3-2-1	52.97	4.12	22.71	1.93	12.85	14.24	6.35	0.33	44.17
IG-009	CR 3549-7-2-1-1-1-3	48.52	1.86	14.50	0.53	5.78	10.75	4.46	0.16	33.39
IG-010 (NGR)	CR 3573-3-1-3-1-1-1	38.92	4.52	22.85	0.77	5.81	18.40	6.62	0.28	46.49
IG-011	CR 3756-2-1-1-1-1	37.68	2.46	16.80	0.52	4.26	13.66	5.16	0.21	34.08
IG-012	CR 3783-3-2-1-1-1-1	62.77	2.86	14.94	0.30	3.09	10.96	4.44	0.17	30.27
IG-013	CR 3504-11-2-1-4-1-1	41.69	2.45	11.75	0.46	4.38	12.02	4.86	0.16	27.50
IG-014	CR 3516-11-2-2-1-1-5	41.73	1.88	16.35	0.70	6.30	14.87	6.67	0.18	28.89
IG-015	CR 3504-11-2-2-1-1-2	38.22	2.56	15.75	0.62	5.31	15.06	6.94	0.15	31.29
IG-016	CR 3564-1-1-4-2-2-1	41.79	2.14	12.61	0.45	5.25	12.52	4.89	0.16	34.58
IG-017 (Check)	ANJALI	34.43	4.11	25.63	0.86	5.44	12.47	3.19	0.13	20.77
IG-018 (NGR)	CR 4319-5-2-1	70.94	3.33	17.50	0.48	4.08	15.99	6.50	0.25	45.55
IG-019 (NGR)	CR 4030-3-3-3-1-1-1	64.22	4.45	25.28	1.51	6.41	13.02	5.73	0.23	35.89
IG-020 (NGR)	CR 4336-13-1-1-2-1	49.48	2.17	27.78	0.97	10.99	18.01	8.19	0.33	30.03
IG-021 (NGR)	C 679-3-4-1-1	46.41	2.08	7.55	1.10	12.36	9.69	3.07	0.16	31.88
IG-022 (NGR)	CR 4334-2-1-1-1	67.71	3.95	22.29	0.80	4.92	15.02	6.24	0.41	65.31
IG-023 (NGR)	C-946-108-1	56.12	3.71	21.47	0.61	3.40	9.30	3.11	0.32	47.38
IG-024 (NGR)	CR 4213-22-1-3-1	58.52	2.55	15.22	0.43	7.74	14.24	3.56	0.28	36.70
IG-025 (Check)	CR-DHAN-206	22.12	3.47	18.64	1.30	12.65	14.72	4.42	0.15	20.92
IG-026 (Check)	CR-DHAN-304	34.07	2.97	16.43	0.59	5.32	20.88	6.48	0.16	28.65
IG-027 (Check)	HEERA	35.63	4.23	24.13	0.93	5.93	5.32	2.10	0.09	20.00
IG-028 (Check)	IR-64	27.58	2.04	12.44	1.03	12.49	14.04	4.46	0.23	34.23
IG-029	CR 4314-1-1-1-1-2-1	37.47	0.92	17.30	0.55	4.11	9.97	3.28	0.21	39.17
IG-030	CR 4445-1-1-2-1-2	46.55	3.99	19.25	0.43	3.95	14.33	4.12	0.19	23.86
IG-031	CR 4446-1-2-2-1-1	43.78	1.77	16.20	0.58	5.50	16.66	6.96	0.20	23.52
IG-032	CR 4447-2-3-1-1-2	38.62	1.91	13.50	0.51	6.18	14.25	6.20	0.21	44.58
IG-033	CR 4315-3-1-1-2-1	29.48	2.32	19.25	0.75	5.53	13.78	3.53	0.25	36.58
IG-034	CR 4358-3-3-1-2-1	40.04	3.32	15.65	0.37	3.72	17.90	6.11	0.30	36.65

IG-035	CR 3525-24-6-2-1-1	43.01	1.48	14.10	0.39	3.07	17.38	7.69	0.21	35.74
IG-036	CR 4324-1-2-1-1-2-1	40.60	1.58	16.24	0.48	3.81	16.03	6.20	0.28	32.67
IG-037	CR 4409-1-1-1-1-1-1	57.65	1.71	11.80	0.49	4.67	11.94	4.67	0.38	71.70
IG-038	CR 4411-3-1-1-4-1-1	42.32	2.30	20.22	0.47	4.61	15.18	6.09	0.18	35.10
IG-039	CR 4325-1-3-3-2-1-1	49.02	1.44	14.78	0.52	4.92	16.42	7.34	0.19	26.04
IG-040	CR 4313-1-1-2-1-1-1	40.98	3.08	16.43	0.54	4.63	15.07	6.72	0.23	32.92
IG-041	CR 4428-1-1-2-1-3-1	48.10	2.05	13.73	0.28	3.20	15.29	5.90	0.19	34.17
IG-042 (Check)	MAUDAMANI	37.54	2.46	14.18	1.56	12.48	16.07	6.77	0.19	36.77
IG-043	CRL 234	33.82	4.65	14.29	0.40	7.61	10.87	4.36	0.09	14.61
IG-044	G 2063	32.11	4.72	21.91	0.93	5.54	16.32	6.56	0.33	45.09
IG-045	RP 5947-123-6-2-1-1B	38.28	2.84	10.06	0.30	2.86	14.61	6.16	0.19	34.38
IG-046	CRHR 20-21R	27.05	3.35	15.19	0.36	7.63	16.86	5.89	0.36	38.49
IG-047	RATNAGIRI	30.16	2.70	14.45	0.26	2.66	11.77	4.36	0.33	34.07
IG-048	Sumati	22.21	2.41	10.08	0.40	5.11	8.93	3.33	0.06	12.08
IG-049	GNV 14-96-1	27.05	2.35	14.81	0.18	4.65	11.63	3.75	0.14	25.73
IG-050	PUSA 1850-16	61.24	3.65	20.44	0.64	10.73	11.56	3.09	0.41	39.75
IG-051	HR-411127 R	30.18	4.49	24.20	1.08	7.00	10.12	2.70	0.14	24.17
IG-052	CR 31-768-5-1-1PB	29.45	3.08	15.99	0.47	4.01	11.64	2.85	0.26	30.09
IG-053	CR 289-103B	22.01	4.20	19.23	0.47	9.65	9.19	2.55	0.15	22.43
IG-054	CRRP-1-12-18	31.17	5.32	13.40	0.42	4.10	13.82	3.24	0.31	28.09
IG-055	CR 311-45-7-1-1	32.86	1.55	9.30	0.21	3.57	10.85	3.70	0.24	27.84
IG-056	CR 32-1079-5-2	38.69	3.39	17.55	0.31	2.56	11.78	4.63	0.21	28.75
IG-057	CR 23-1006-8-1R	20.80	2.98	11.11	0.32	5.30	8.69	2.32	0.04	7.29
IG-058	CRRP-6-112-8	20.74	1.82	17.22	0.44	9.37	13.35	4.25	0.05	6.39
IG-059	CR 3938-6-2-1-1-1	25.72	2.42	14.88	0.38	7.73	7.25	2.63	0.30	41.85
IG-060	C 767-4-2-1-1	40.21	2.18	12.05	0.23	4.00	9.94	3.87	0.12	20.77
IG-061	CR 4312-5-1-1-3	40.16	3.15	11.22	0.33	3.48	9.89	3.94	0.16	32.40
IG-062	Sambha Mahsuri	27.06	4.87	12.45	0.35	7.21	3.76	1.39	0.11	23.23
IG-063	CR 3967-40-3-1-1-1-1	34.86	2.59	15.01	0.33	6.23	18.26	6.44	0.15	22.66
IG-064	CR 4312-5-1-1-1-1-3-2-1	41.08	3.98	7.81	0.25	3.57	8.83	3.00	0.04	6.99
IG-065	CSR-43	40.00	4.68	14.84	0.41	5.02	8.86	1.99	0.28	30.31
IG-066	Selection from IET 24934	25.74	3.97	21.21	0.70	9.77	11.71	5.44	0.31	44.14
IG-067	BRR1-75	29.96	5.50	15.46	0.50	6.20	8.97	3.71	0.05	8.15
IG-068	C 28-2-2-1-1-2	37.49	3.15	17.55	0.47	8.78	19.20	8.73	0.29	37.79
IG-069	IR-58025B	38.77	3.27	18.60	0.69	5.03	10.95	4.39	0.22	30.29

IG-070	CRMS 8B	36.76	2.18	17.11	1.13	9.20	11.05	2.76	0.18	21.88
IG-071	19332	36.84	3.50	18.72	0.44	3.91	15.01	5.35	0.34	41.84
IG-072	C 766-1-1-1-1-1	33.02	2.46	19.46	0.67	10.38	12.78	5.02	0.19	26.19
IG-073	CR 1065-322B	23.47	2.46	13.77	0.29	5.47	11.81	1.58	0.23	27.57
IG-074	C 638-2-2-1	48.50	1.62	14.03	0.31	6.17	16.14	5.79	0.25	31.82
IG-075	CR 3856-76-11-2-2-1-2	19.59	0.94	14.63	0.55	5.45	11.09	4.41	0.14	22.19
IG-076	CR 2921	30.42	1.83	12.34	0.31	5.74	15.09	5.03	0.09	12.95
IG-077	DRR-42	27.95	3.50	22.04	1.49	10.68	9.39	2.60	0.06	12.10
IG-078	DRR-42-1	24.61	2.56	21.84	1.03	7.20	11.72	4.43	0.17	21.74
IG-079	CR 3856-44-22-2-1-5- 2-1-1-2	47.59	2.68	20.70	0.49	3.83	9.79	2.38	0.17	27.80

IG-080	Pusa-NPT-16-15	20.87	3.28	20.43	0.64	10.14	9.51	3.71	0.20	26.80
IG-081	GK-53017	24.67	3.52	18.23	0.35	7.61	14.96	5.45	0.07	11.19
IG-082	Kudarat-2	41.62	2.97	17.74	0.75	6.53	18.52	7.80	0.38	73.59
IG-083	CR 3856-45-2-72-1-1-1-1	30.70	3.62	13.25	0.38	4.46	16.95	6.53	0.16	20.04
IG-084	OR 2573-6	39.05	2.86	15.43	0.26	3.01	7.00	2.42	0.08	13.13
IG-085	19302	17.91	4.85	20.05	0.38	4.75	6.67	2.48	0.13	17.53
IG-086	CR 4112-3-2-1-1-1-1	27.03	3.55	16.99	0.45	5.35	10.87	3.33	0.06	9.61
IG-087	DRR-46	43.55	3.10	21.48	0.42	3.16	11.49	3.56	0.33	45.20
IG-088	CRMS-32B	35.57	2.55	13.64	0.34	4.11	10.79	3.60	0.23	30.13
IG-089	C 93-30-1-1-1-1-1	32.04	2.55	15.64	0.32	2.69	12.17	3.87	0.13	18.79
IG-090	CR 3856-44-3-2-2-2-1-1-1	66.68	2.53	13.01	0.37	4.81	17.45	5.03	0.21	26.12
IG-091	C 228-1-1-1-1-1-1-1-2	24.71	3.24	17.94	0.49	4.56	10.16	2.15	0.15	25.36
IG-092	CR 3856-24-3-2-1-1-1	32.16	3.00	15.65	0.41	3.60	15.52	6.45	0.17	21.34
IG-093	CRAC-3995-139	28.11	3.64	20.10	0.59	4.16	12.70	3.94	0.13	18.23
IG-094	CRAC-3994-6-1	41.80	4.10	16.84	0.42	3.74	11.15	3.70	0.19	24.38
IG-095	CR 4121-142-36-24-1	26.43	4.38	17.75	0.42	3.60	11.40	3.15	0.12	17.55
IG-096	S-594	42.51	2.76	16.91	0.62	3.88	14.62	4.19	0.22	22.71
IG-097	PAN-802	45.26	1.83	11.16	0.22	3.37	7.43	2.67	0.14	24.32
IG-098	CR 3856-60-4-1-1-1-1-1	22.95	2.68	15.16	0.66	5.76	13.24	3.50	0.45	42.93
IG-099	CR 32-15-8-1	23.76	2.70	13.86	0.30	6.39	9.69	4.07	0.09	15.09
IG-100	HR-411126R	40.70	2.15	14.13	0.16	1.46	8.10	2.33	0.09	13.84
IG-101	CR 3856-50-2-3-2-3-1-1-1-1	36.41	4.10	17.18	0.70	9.85	7.84	1.90	0.21	28.39
IG-102	Selection from CR-Dhan-307	38.19	3.89	13.76	0.25	2.26	8.08	2.68	0.59	51.78
IG-103	N-306	27.50	4.07	19.83	0.43	3.71	6.43	1.49	0.31	35.45
IG-104	ANADA	39.04	2.99	12.39	0.37	4.69	13.01	3.80	0.18	18.73

IG-105	NAVEEN	24.29	0.82	9.30	0.17	2.48	13.26	4.30	0.27	31.13
IG-106	CR 3856-45-11-2-7-2	34.60	2.55	15.68	1.08	10.86	7.13	1.42	0.22	29.78
IG-107	C 767-4-2-1-1-2	23.32	3.24	18.80	0.88	7.65	6.31	1.49	0.08	11.54
IG-108	RPHP 1-1-2	20.17	3.71	20.82	0.68	9.60	9.59	2.32	0.08	8.33
IG-109	Goyandi	37.89	2.30	13.89	0.56	5.26	7.69	1.83	0.14	21.28
IG-110	IR 801555	32.08	1.65	12.33	0.38	3.72	20.99	8.42	0.09	16.70
IG-111	YLD-154	52.00	3.21	15.18	0.62	5.95	9.68	2.95	0.19	17.14
IG-112	IR-74371-54-1-1	37.22	5.17	28.69	0.63	4.29	8.48	2.45	0.16	19.22
IG-113	IR-9330-15-13-16-11	37.91	3.85	18.04	0.58	9.80	10.48	2.57	0.22	33.97
IG-114	CR-DHAN-40	33.88	4.03	20.67	0.72	5.19	8.79	2.48	0.17	23.60
IG-115	NDR-1045-2	57.61	2.62	14.41	0.74	5.96	10.42	2.72	0.26	36.11
IG-116	191010	46.68	1.84	14.47	0.19	1.80	7.90	1.91	0.13	19.57
IG-117	CR 3969-24-1-2-1-1	22.16	1.73	17.08	0.52	4.52	8.34	2.57	0.17	18.80
IG-118	RR 385-249	26.55	3.16	18.74	1.01	7.65	6.16	1.42	0.07	11.79
IG-119	C 89-1-1-1-1-3-1	29.16	2.58	18.79	0.20	1.98	9.00	3.84	0.14	20.63
IG-120	IR 71591	22.61	2.66	16.77	0.35	3.10	10.98	3.49	0.06	8.82
IG-121	NP-2006	43.75	1.72	12.59	0.62	4.73	10.13	2.06	0.23	21.01
IG-122	CR 3856-84-1-3-1-1	21.67	2.92	16.29	0.46	4.34	8.38	1.45	0.29	38.54
IG-123	C 220-76-11-2-2-1-2	25.09	4.13	19.93	0.58	4.28	9.76	2.45	0.14	18.64
IG-124	CR 3856-63-3-1-1-1-1-2-1-1	37.34	2.71	11.54	0.34	3.04	15.92	5.33	0.24	24.49
IG-125	CR 3856-76-1-1-1-2-1-1-1-1	34.39	3.18	14.45	0.36	3.16	6.77	1.74	0.05	7.29
IG-126	CRRP-1-8-39	15.19	2.88	18.79	0.54	4.14	10.96	3.81	0.11	23.75
IG-127	CR 3856-63-1-1-1-1-1-1-1	50.49	4.45	12.73	0.66	9.33	8.30	2.62	0.23	46.35
IG-128	CR 3856-55-14-1-1-1-2-1-1-2	63.16	2.86	13.41	0.43	3.58	18.09	6.83	0.13	14.71
IG-129	NDT-V12	30.86	2.79	17.05	0.40	7.76	14.43	5.23	0.28	26.79
IG-130	CR 3967-11-1-1-1-1-1-3	34.81	1.05	12.65	0.49	5.06	18.51	6.52	0.13	15.73
IG-131	CR 3568-5-1-2-1-1-1	34.20	3.41	18.50	0.36	3.01	14.91	4.79	0.10	11.31
IG-132	CR 3504-24-2-1-1-1-1	21.88	2.12	13.80	0.25	2.45	14.19	6.18	0.16	16.85
IG-133	CR 3511-8-2-2-1-1-1	22.92	3.60	23.10	0.27	2.62	15.54	4.97	0.16	19.88
IG-134	CR 3552-3-1-1-1-1-1-2	19.00	2.00	14.39	0.35	7.03	17.05	5.91	0.23	32.29
IG-135	CR 3562-2-1-1-1-1-1-1	27.73	3.56	21.17	0.19	1.69	10.37	2.78	0.20	23.52
IG-136	CR 3549-3-5-2-1-1-1	49.87	4.26	14.06	0.18	1.49	13.90	5.88	0.19	21.21
IG-137	A-5	28.41	4.24	21.11	0.48	3.95	13.65	4.36	0.07	8.30
IG-138	CR 546	37.36	5.40	15.98	0.37	7.89	7.84	2.17	0.10	12.85
IG-139	TMRH-112	38.39	3.26	18.58	0.27	2.52	10.91	3.47	0.16	18.19
IG-140	R-1853-82-1-80-1	35.38	4.30	17.47	0.41	3.24	15.88	6.70	0.27	31.55
IG-141	CR 2644-2-6-4-3-2-1	76.26	2.17	9.05	0.19	1.85	9.49	3.37	0.20	28.82

IG-142	IR-102698-1-47-57-102-1-B	41.72	1.55	14.67	0.13	1.27	16.11	6.48	0.23	32.74
IG-143	IET-25749	44.69	3.54	19.70	0.53	4.04	21.59	8.47	0.23	26.64
IG-144	CR 3589-1-4-1-1-1-1	32.06	2.17	13.00	0.18	1.75	14.25	6.58	0.12	13.73
IG-145	OR 2517-8	32.66	3.17	19.06	0.57	4.28	9.13	2.71	0.38	59.34
IG-146	Pusa 44	34.25	3.58	17.13	0.58	5.42	6.20	1.91	0.18	32.29
IG-147	CR 3969-11-1-1-1-1-1	21.93	2.96	20.57	0.34	3.23	11.36	3.70	0.31	26.48
IG-148	CR 3856-29-14-2-1-7-3-2	38.94	2.63	12.84	0.17	1.76	8.80	1.83	0.16	22.40
IG-149	R-RGM-SM-14	49.83	2.79	15.21	0.53	9.08	10.44	4.15	0.09	15.24
IG-150	CR 3856-74-1-3-1-1-1-3-1-1	20.30	3.05	22.22	0.57	9.52	7.58	3.35	0.06	9.84
IG-151	CR 3967-11-1-1-1-1-1-2	40.44	3.35	17.34	0.78	10.15	9.00	3.60	0.13	20.83
IG-152	CR 4336-13-1-1-2-1-1	43.32	2.55	14.75	0.15	1.38	12.42	3.30	0.19	27.68
IG-153	CR 4319-5-1-1-2-1	42.53	3.58	20.26	0.69	10.12	19.62	6.87	0.27	32.24
IG-154	CR 3856-72-1-1-1-2-1-1	40.48	2.61	16.96	0.25	2.75	16.09	6.38	0.21	34.29
IG-155	CR 3856-44-22-1-7-1-3-1-2	32.88	4.07	16.71	0.53	3.92	17.09	6.54	0.26	30.45
IG-156	CR 3856-62-11-3-1-1-1-1-1-1	50.03	2.95	25.05	1.27	6.84	14.03	6.17	0.14	17.46
IG-157	CR 3856-64-2-1-1-1-1-1-2-1-1	42.76	4.10	21.58	1.35	8.45	13.12	5.21	0.14	15.92
IG-158	A-51	22.91	3.30	20.71	1.48	8.70	7.15	2.46	0.23	40.80
IG-159	CR 4213-22-1-3-1-1-1	35.71	3.18	16.19	0.95	7.20	16.25	5.73	0.18	20.87
IG-160	CR 3773-3-2-1-1-1	25.72	2.91	15.20	0.25	2.29	8.33	2.80	0.23	34.06
IG-161 (NGR)	C 89-1-1-1-1-5-1	50.02	4.22	20.94	1.11	11.41	21.62	8.84	0.32	43.80
IG-162	RCPR-47-IR-9246-33-4-2-3	27.29	1.47	16.48	0.37	3.67	10.12	3.54	0.03	3.87
IG-163	OR-2517-8	24.70	2.71	16.96	0.54	9.26	10.89	3.99	0.07	13.75
IG-164	R-2307-108-2-85-1	28.72	3.36	18.60	0.79	4.95	15.37	5.99	0.25	23.89
IG-165	R-2302-388-1-279-1	23.44	4.01	19.52	0.54	4.23	14.39	5.34	0.27	33.99
IG-166	R-RGY-51-3	21.02	3.25	25.93	0.53	5.05	12.11	4.41	0.18	18.25
IG-167	R-2321-165-1-148-1	51.37	2.47	15.75	0.12	1.24	21.17	4.24	0.16	27.29
IG-168	NP-1248	18.90	2.71	27.31	0.45	4.05	12.96	5.41	0.18	21.92
IG-169	A-1	33.89	4.72	16.74	0.55	9.16	7.38	2.71	0.08	15.00
IG-170	A-39	31.11	2.40	12.88	0.23	2.64	14.89	5.20	0.16	23.07
IG-171	R-1853-105-1-82-1	19.94	3.35	19.29	0.64	11.04	14.56	5.80	0.16	28.04
IG-172	DGR 014	34.81	4.90	23.67	0.98	5.74	13.74	5.50	0.22	25.78
IG-173	NHN-291-BLM-9	27.03	1.89	9.66	0.35	3.42	10.95	2.87	0.14	16.29
IG-174	CR-DHAN-303	38.05	3.27	14.72	0.25	2.57	17.45	7.13	0.21	28.50
IG-175 (NGR)	CR 3856-44-22-2-1-11-1	55.79	2.04	24.18	0.72	9.32	14.82	6.91	0.26	40.48
IG-176 (NGR)	CR 3856-44-22-2-1-10-1	41.57	3.60	15.36	0.55	5.50	12.23	4.33	0.20	35.00
IG-177 (NGR)	CR 3856-64-2-1-1-1-1-1-2-1-2	46.96	2.25	11.68	1.14	11.85	12.90	5.42	0.23	36.19
IG-178 (NGR)	CR 3856-29-14-2-1-7-3	61.00	4.05	17.16	1.56	12.22	10.49	4.63	0.23	33.59

IG-179 (NGR)	CR 3856-44-22-2-1-7-1-4-2	48.75	4.32	19.86	0.78	4.31	11.80	5.41	0.23	33.71
IG-180 (NGR)	CR 3856-44-22-2-1-7-14-1-3	58.25	2.48	11.57	0.93	12.05	7.53	2.33	0.19	32.92
IG-181 (NGR)	CR 3856-44-22-1-7-4-1	38.72	3.36	17.46	0.88	10.56	15.00	6.25	0.36	51.81
IG-182 (NGR)	CR 3856-44-22-2-1-7-4-2-1	55.55	3.01	16.87	0.48	4.45	8.83	3.73	0.18	32.04
IG-183 (NGR)	CR 3969-17-2-2-1-1-1	47.16	2.57	15.53	0.77	10.08	9.35	3.77	0.22	38.15
IG-184 (NGR)	CR 3969-51-2-1-1-1	43.13	2.33	17.70	0.62	9.48	11.22	4.07	0.25	39.51
IG-185 (NGR)	C 28-2-1-1-2-1	43.93	3.63	17.98	0.57	9.72	12.97	5.15	0.21	30.54
IG-186 (NGR)	C 28-22-1-1-1	51.54	2.24	19.39	1.57	12.62	14.73	6.81	0.46	65.96
IG-187 (NGR)	C 28-2-2-1-1-1	43.35	4.11	23.70	0.66	5.43	14.29	5.98	0.19	38.39
IG-188 (NGR)	C 89-1-1-1-1-3-1	43.62	3.23	17.18	0.71	9.85	15.23	6.09	0.25	40.06
IG-189 (NGR)	C 89-1-1-1-1-6-1	44.47	2.53	13.50	1.07	12.20	12.77	5.53	0.19	28.76
IG-190 (NGR)	C 257-24-1-2-1-1	39.59	2.72	18.81	0.68	9.80	13.30	5.84	0.30	40.20
IG-191 (NGR)	CR 3969-17-2-2-1-1-1	49.86	3.22	21.69	0.69	5.00	14.17	6.34	0.19	33.33
IG-192 (NGR)	CR 3967-11-1-1-1-1-1-1	37.87	4.12	16.49	0.14	0.94	13.48	5.75	0.24	32.71
IG-193 (NGR)	CR 3938-6-2-1-1-1	54.09	2.26	11.53	1.01	11.64	11.45	5.02	0.18	31.25
IG-194 (NGR)	CR 3938-1-2-1-2-4-1-1	50.34	3.22	21.74	0.57	5.42	8.30	1.94	0.21	41.79
IG-195 (NGR)	CR 3938-6-2-1-1-1-1-1	55.18	2.62	14.41	1.29	11.25	10.13	3.61	0.17	30.63
IG-196 (NGR)	CR 3938-6-2-1-1-1-1-2	38.25	4.27	23.13	0.86	6.23	14.67	6.01	0.21	31.85
IG-197 (NGR)	CR 3856-1-8-1-1-1-2-1	39.31	3.10	17.73	0.50	9.57	13.30	4.39	0.33	48.01
IG-198 (NGR)	CR 3856-55-14-2-1-1-1-1-1	47.33	3.90	15.81	1.31	10.95	11.27	4.82	0.24	33.13
IG-199 (NGR)	CR 4121-36-24-149-1-2	85.33	3.80	21.68	0.64	4.71	14.40	6.43	0.20	35.79
IG-200 (NGR)	CR 4121-36-24-21	47.54	3.72	21.29	0.82	4.50	11.75	4.97	0.22	38.79
IG-201 (NGR)	CR 4121-36-24-3-41	89.07	2.56	15.84	1.53	12.23	8.03	3.08	0.27	48.30
IG-202 (NGR)	CR 3856-44-22-2-1-11-4-2-4	57.72	3.66	17.56	0.77	9.17	12.85	4.28	0.23	42.19
IG-203 (NGR)	CR 3856-44-22-2-1-11-4-2-6	40.54	2.73	15.69	1.66	12.33	12.60	5.24	0.26	44.52
IG-204 (NGR)	CR 3856-44-22-2-1-11-4-1-3	55.66	3.54	16.76	2.07	12.53	12.67	5.50	0.32	50.34
IG-205 (NGR)	CR 3856-44-22-2-1-11-4-1-1	64.75	2.15	13.86	1.34	9.34	12.53	4.59	0.23	42.05
IG-206 (NGR)	CR 3856-44-22-2-1-11-4-1-3	41.52	3.33	17.80	0.46	8.66	12.31	5.42	0.28	48.33
IG-207 (NGR)	CR 3856-44-22-2-1-11-4-3-1	51.95	2.95	16.30	1.13	10.30	13.07	5.86	0.19	37.37
IG-208 (NGR)	CR 3856-44-22-2-1-11-4-3-5	45.14	4.04	20.57	0.51	2.88	17.89	8.50	0.28	52.59
IG-209 (NGR)	CR 3856-44-22-2-1-11-4-3-2	69.86	4.09	23.28	1.49	6.65	10.82	3.61	0.26	46.88
IG-210 (Check)	SWARNA	25.99	4.18	18.31	0.33	3.27	12.96	4.65	0.27	44.88
IG-211 (NGR)	CR 4121-36-24-1	48.11	4.25	20.15	1.06	4.72	15.32	7.01	0.40	70.24

FLA, flag leaf area (cm<sup>2</sup>); TCC, total chlorophyll content (mg/g fresh weight);  $P_N$ , photosynthetic rate ( $\mu\text{mol CO}_2/\text{m}^2/\text{s}$ );  $g_s$ , stomatal conductance ( $\text{mmol}/\text{m}^2/\text{s}$ );  $E$ , transpiration rate ( $\text{mmol H}_2\text{O}/\text{m}^2/\text{s}$ ); TB, total biomass (t/ha); GY, grain yield (t/ha); PR, pushing resistance (kg/cm); CS, culm strength (g/stem); SD, standard deviation.

Supplementary Table 2 Classification of rice genotypes according their morphophysiological and yield traits

Trait	FLA	TCC	P <sub>N</sub>	g <sub>s</sub>	E	TB	GY	PR	CS
Threshold value for considering efficient genotype (mean + SD)	51.51 cm <sup>2</sup>	3.99 mg/g fresh weight	20.79 μmol CO <sub>2</sub> /m/s	0.97 mmol/m <sup>2</sup> /s	9.03 mmol H <sub>2</sub> O/m <sup>2</sup> /s	15.95 t/ha	6.27 t/ha	0.29 kg/cm	42.12 g/stem
Genotypes present in efficient category (having values more than the threshold value)	IG-186 IG-207 IG-111 IG-001 IG-008 IG-193 IG-195 IG-182 IG-204 IG-175 IG-023 IG-115 IG-037 IG-202 IG-180 IG-024 IG-178 IG-050 IG-012 IG-128 IG-019 IG-205 IG-090 IG-022 IG-209 IG-018 IG-141 IG-199 IG-201	IG-165 IG-114 IG-208 IG-178 IG-155 IG-103 IG-209 IG-157 IG-101 IG-094 IG-187 IG-017 IG-192 IG-008 IG-123 IG-210 IG-053 IG-161 IG-027 IG-137 IG-211 IG-136 IG-196 IG-140 IG-179 IG-095 IG-127 IG-019 IG-051	IG-108 IG-161 IG-137 IG-135 IG-066 IG-200 IG-023 IG-087 IG-157 IG-199 IG-191 IG-194 IG-078 IG-044 IG-077 IG-150 IG-022 IG-008 IG-010 IG-133 IG-196 IG-209 IG-172 IG-187 IG-019 IG-051	IG-172 IG-193 IG-118 IG-028 IG-078 IG-211 IG-189 IG-106 IG-051 IG-021 IG-161 IG-207 IG-070 IG-177 IG-156 IG-195 IG-025 IG-198 IG-205 IG-157 IG-158 IG-077 IG-209 IG-019 IG-201 IG-178 IG-042 IG-186 IG-203	IG-149 IG-169 IG-202 IG-070 IG-163 IG-175 IG-127 IG-205 IG-058 IG-184 IG-150 IG-197 IG-108 IG-053 IG-185 IG-066 IG-190 IG-113 IG-101 IG-188 IG-183 IG-153 IG-080 IG-151 IG-207 IG-072 IG-181 IG-077 IG-050	IG-018 IG-036 IG-042 IG-154 IG-005 IG-142 IG-074 IG-159 IG-044 IG-039 IG-031 IG-046 IG-002 IG-083 IG-134 IG-155 IG-035 IG-174 IG-090 IG-208 IG-034 IG-186 IG-020 IG-128 IG-063 IG-010 IG-130 IG-082 IG-031 IG-003 IG-068	IG-191 IG-008 IG-154 IG-199 IG-063 IG-092 IG-026 IG-142 IG-018 IG-130 IG-083 IG-155 IG-044 IG-044 IG-010 IG-014 IG-140 IG-005 IG-040 IG-042 IG-186 IG-128 IG-003 IG-153 IG-175 IG-015 IG-031 IG-211 IG-174	IG-034 IG-059 IG-190 IG-103 IG-054 IG-066 IG-147 IG-023 IG-161 IG-204 IG-008 IG-047 IG-020 IG-044 IG-087 IG-197 IG-071 IG-046 IG-181 IG-037 IG-145 IG-004 IG-082 IG-211 IG-022 IG-050 IG-098 IG-186 IG-102	IG-202 IG-098 IG-161 IG-066 IG-008 IG-203 IG-032 IG-210 IG-044 IG-087 IG-018 IG-004 IG-127 IG-010 IG-209 IG-023 IG-005 IG-197 IG-005 IG-201 IG-206 IG-204 IG-102 IG-181 IG-208 IG-145 IG-022 IG-022 IG-186 IG-211 IG-037

		IG-010 IG-043 IG-065 IG-169 IG-044 IG-085 IG-062 IG-172 IG-112 IG-054 IG-138 IG-067	IG-017 IG-166 IG-168 IG-020 IG-112	IG-008 IG-204	IG-106 IG-198 IG-020 IG-171 IG-195 IG-161 IG-193 IG-177 IG-180 IG-189 IG-178 IG-201 IG-203 IG-021 IG-042 IG-028 IG-204 IG-186, IG-025 IG-008	IG-153 IG-026 IG-110 IG-167 IG-143 IG-161	IG-039 IG-035 IG-082 IG-002 IG-020 IG-110 IG-143 IG-161		IG-082
Number of genotypes in efficient category	29	41	34	31	49	35	39	29	30

FLA, flag leaf area (cm<sup>2</sup>); TCC, total chlorophyll content (mg/g fresh weight);  $P_N$ , photosynthetic rate ( $\mu\text{mol CO}_2/\text{m}^2/\text{s}$ );  $g_s$ , stomatal conductance ( $\text{mmol}/\text{m}^2/\text{s}$ );  $E$ , transpiration rate ( $\text{mmol H}_2\text{O}/\text{m}^2/\text{s}$ ); TB, total biomass (t/ha); GY, grain yield (t/ha); PR, pushing resistance (kg/cm); CS, culm strength (g/stem); SD, standard deviation.