

**DOI: 10.17957/IJAB/15.1628 (IJAB-20-0816)**

## **Supplementary Data**

**Supplementary Table S1: Mean grain yield in each environment in kg/ha**

Genotype	BM	BMRS	PB	PBRs	SR	SRRS	TC1	TC1RS	TC2	TC2RS	TC3	TC3RS	TS
G1	6583.29ab	6294.40a	4797.52a	3189.42ab	3809.66b	4362.43a	6240.00c	7040.00bc	4220.62a	5354.12a	5636.80b	4852.93a	7740.67a
G2	4980.86ab	4333.47a	6231.76a	3507.45ab	6651.95a	4472.56a	10506.67a	9226.93abc	5890.62a	6247.94a	6984.93ab	5474.67a	7764.40a
G3	5680.11ab	4617.33a	6312.25a	3583.96ab	5626.90ab	5141.75a	8813.33abc	9564.00ab	5896.12a	4983.41a	5406.67b	6398.53a	6290.93ab
G4	5986.64ab	4327.07a	5727.25a	3642.15ab	5473.29ab	6545.69a	9440.00ab	10227.20a	6214.24a	5671.87a	6789.33ab	5109.33a	7894.00a
G5	5789.83ab	5994.80a	6403.94a	3230.78ab	3719.97b	5948.03a	9240.00ab	9415.73abc	6247.48a	4904.14a	6388.93ab	6094.00a	5745.73ab
G6	5838.79ab	4740.13a	6249.45a	3667.68ab	4638.51ab	4618.23a	9386.67ab	9755.73a	5951.13a	5527.16a	8388.93a	6172.67a	6405.60ab
G7	6753.79a	4570.13a	5379.64a	5247.33a	5635.66ab	5323.28a	8786.67abc	9274.93abc	5860.48a	5369.55a	6475.33ab	5114.27a	6813.73a
G8	5677.93ab	4812.27a	4659.56a	3181.09ab	4892.86ab	4286.89a	8853.33abc	9000.00abc	5382.52a	5967.44a	5484.67b	4943.33a	7026.27a
G9	6260.58ab	5002.00a	4662.01a	2471.71b	5552.70ab	5794.31a	6973.33bc	6756.67c	4463.45a	5502.28a	5055.33b	4546.93a	5691.33ab
G10	3932.38 b	5744.80a	5627.17a	4206.55ab	4783.60ab	4911.07a	8853.33abc	7659.00abc	3857.027a	4820.85a	4491.47b	3945.07a	4072.80 b

**Supplementary Table S2: Number of panicles for each genotype in each environment.**

<i>Genotype</i>	<i>BM</i>	<i>Grouping</i>	<i>BMRS</i>	<i>Grouping</i>	<i>PB</i>	<i>Grouping</i>	<i>PBRs</i>	<i>Grouping</i>	<i>SR</i>	<i>Grouping</i>	<i>SRRS</i>	<i>Grouping</i>	<i>TCI</i>	<i>Grouping</i>	<i>TCIRS</i>	<i>Grouping</i>
G1	23.00	a	19.67	a	14.67	ab	11.33	ab	19.67	a	18.00	a	22.33	a	23.67	a
G2	13.33	a	11.67	a	12.67	ab	9.00	b	18.67	a	13.67	a	17.00	a	20.00	a
G3	14.33	a	14.67	a	11.33	ab	11.00	ab	15.00	a	14.33	a	19.33	a	17.67	a
G4	20.67	a	12.33	a	17.00	ab	10.00	b	20.33	a	17.33	a	20.33	a	18.33	a
G5	18.67	a	15.00	a	11.00	b	9.67	b	16.67	a	17.33	a	17.67	a	16.67	a
G6	17.33	a	14.00	a	14.33	ab	8.00	b	18.33	a	17.00	a	15.33	a	17.33	a
G7	18.67	a	12.33	a	16.67	ab	17.33	a	19.67	a	14.67	a	18.00	a	21.00	a
G8	19.33	a	14.00	a	17.33	a	9.33	b	17.67	a	16.33	a	18.33	a	15.00	a
G9	20.00	a	13.67	a	15.67	ab	12.33	ab	17.67	a	19.67	a	22.33	a	21.67	a
G10	19.33	a	13.67	a	13.33	ab	11.33	ab	19.67	a	13.67	a	20.33	a	20.33	a

Table S2 (Continued)

<i>Genotype</i>	<i>TC2</i>	<i>Grouping</i>	<i>TC2RS</i>	<i>Grouping</i>	<i>TC3</i>	<i>Grouping</i>	<i>TC3RS</i>	<i>Grouping</i>	<i>TS</i>	<i>Grouping</i>	<i>Grand Mean</i>	<i>Grouping</i>
G1	12.67	a	19.33	a	18.33	a	14.33	a	16.67	a	17.97	a
G2	13.33	a	13.33	a	13.33	b	16.00	a	13.33	a	14.26	c
G3	14.67	a	15.33	a	16.33	ab	16.67	a	16.00	a	15.13	bc
G4	12.67	a	16.00	a	16.67	ab	15.33	a	16.00	a	16.38	ab
G5	12.33	a	18.33	a	18.00	a	17.67	a	17.67	a	15.90	bc
G6	15.67	a	14.33	a	15.33	ab	17.33	a	12.67	a	15.15	bc
G7	13.67	a	15.67	a	16.33	ab	16.00	a	14.33	a	16.49	ab
G8	13.33	a	14.67	a	16.00	ab	15.00	a	14.00	a	15.41	bc
G9	13.67	a	16.33	a	18.33	a	15.00	a	14.00	a	16.95	ab
G10	14.67	a	15.67	a	17.33	ab	14.33	a	17.33	a	16.23	ab

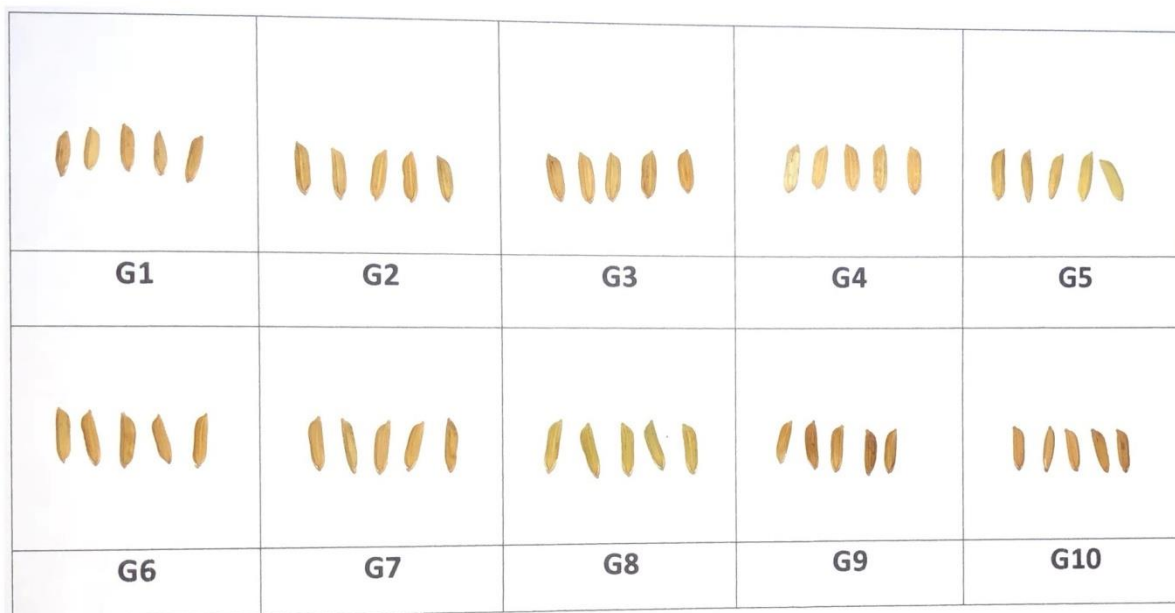
Mean values with different alphabet in each grouping column are significantly different (LSD,  $P < 0.05$ )

**Supplementary Table S3:** Yield related traits for each genotype in each environment

Genotype	LP									
Environment	<i>BM</i>	<i>Grouping</i>	<i>BMRS</i>	<i>Grouping</i>	<i>TC2</i>	<i>Grouping</i>	<i>TC2RS</i>	<i>Grouping</i>	<i>Grand Mean</i>	<i>Grouping</i>
G1	26.13	a	27.93	a	24.60	a	24.20	ab	25.72	a
G2	28.03	a	26.73	a	23.87	a	23.13	ab	25.44	a
G3	25.80	a	26.33	a	24.90	a	24.73	ab	25.44	a
G4	26.87	a	24.13	a	23.43	a	23.13	ab	24.39	a
G5	26.03	a	25.20	a	23.17	a	22.17	b	24.14	a
G6	27.43	a	25.53	a	24.00	a	23.97	ab	25.23	a
G7	27.17	a	26.03	a	24.37	a	23.33	ab	25.23	a
G8	27.50	a	27.30	a	24.37	a	22.17	b	25.33	a
G9	27.00	a	25.57	a	22.87	a	25.83	a	25.32	a
G10	25.97	a	26.33	a	24.20	a	25.43	ab	25.48	a
Genotype	FS									
Environment	<i>BM</i>	<i>Grouping</i>	<i>BMRS</i>	<i>Grouping</i>	<i>TC2</i>	<i>Grouping</i>	<i>TC2RS</i>	<i>Grouping</i>	<i>Grand Mean</i>	<i>Grouping</i>
G1	158.33	ab	159.67	ab	180.33	ab	159.67	ab	164.50	a
G2	147.67	ab	169.67	ab	160.00	ab	168.00	ab	161.33	a
G3	149.67	ab	155.00	ab	161.67	ab	165.67	ab	158.00	a
G4	198.00	ab	113.67	ab	127.00	ab	130.67	ab	142.33	a
G5	153.67	b	178.00	b	151.33	b	167.00	b	162.50	a
G6	183.67	ab	171.00	ab	131.00	ab	131.00	ab	154.17	a
G7	170.33	ab	165.67	ab	147.33	ab	155.00	ab	159.58	a
G8	158.67	b	153.67	b	140.33	b	188.67	b	160.33	a
G9	175.00	a	166.67	a	120.67	a	133.00	a	148.83	a
G10	153.00	ab	166.00	ab	142.33	ab	131.33	ab	148.17	a
Genotype	SPP									
Environment	<i>BM</i>	<i>Grouping</i>	<i>BMRS</i>	<i>Grouping</i>	<i>TC2</i>	<i>Grouping</i>	<i>TC2RS</i>	<i>Grouping</i>	<i>Grand Mean</i>	<i>Grouping</i>
G1	180.00	ab	185.67	ab	189.67	ab	183.67	ab	184.25	a
G2	197.00	ab	186.00	ab	163.33	ab	172.33	ab	179.67	a
G3	165.00	ab	171.33	ab	172.00	ab	168.67	ab	169.25	a
G4	218.33	ab	121.33	ab	133.00	ab	142.00	ab	153.67	a
G5	188.33	b	187.00	b	161.33	b	186.00	b	180.67	a
G6	195.00	ab	185.33	ab	147.00	ab	136.33	ab	165.92	a
G7	190.33	ab	176.33	ab	152.33	ab	156.33	ab	168.83	a
G8	181.00	b	164.33	b	151.00	b	196.00	b	173.08	a
G9	212.33	a	180.00	a	122.00	a	136.33	a	162.67	a
G10	179.33	ab	181.00	ab	157.33	ab	133.67	ab	162.83	a
Genotype	TGW									
Environment	<i>BM</i>	<i>Grouping</i>	<i>BMRS</i>	<i>Grouping</i>	<i>TC2</i>	<i>Grouping</i>	<i>TC2RS</i>	<i>Grouping</i>	<i>Grand Mean</i>	<i>Grouping</i>
G1	24.57	ab	23.63	ab	27.20	ab	20.37	b	23.94	a
G2	25.47	ab	27.13	ab	26.23	ab	30.37	a	27.30	a
G3	25.73	ab	25.67	ab	26.43	ab	30.97	a	27.20	a
G4	25.63	ab	27.20	ab	29.37	ab	30.73	a	28.23	a
G5	26.07	b	26.87	b	24.10	b	29.50	a	26.63	a
G6	25.43	ab	25.97	ab	27.33	ab	30.23	a	27.24	a
G7	25.50	ab	27.37	ab	24.43	ab	27.20	ab	26.12	a
G8	25.97	b	25.40	b	26.03	b	30.10	a	26.87	a
G9	27.63	a	26.23	a	24.77	a	24.17	ab	25.70	a
G10	25.30	ab	25.33	ab	28.50	ab	29.07	ab	27.05	a

Mean values with different alphabet in each grouping column are significantly different (LSD,  $P < 0.05$ )

LP: Length of panicle; FS: full spikelet; SPP: spikelet per panicle; TGW: thousand grain weight



1 cm

**Supplementary Fig. S1:** Photos of the seeds of tested genotypes



G1



G2



G4



G8



G2



G2



G4



G4

**Supplementary Fig S2: Seed widths of the tested genotypes**