

**Supplementary Table S1.** Analysis of variance for ten morpho-physiological parameters in rice genotypes at the seedling stage under both alkaline and saline stress

Trait name	SIS	CHL (SPAD units)	SL (cm)	RL (cm)	SNC (mmol kg <sup>-1</sup> )	SKC (mmol kg <sup>-1</sup> )	RNC (mmol kg <sup>-1</sup> )	RKC (mmol kg <sup>-1</sup> )	SNaK (ratio)	RNaK (ratio)
Genotype (F values)	17.46 <sup>***</sup>	12.08 <sup>***</sup>	35.26 <sup>***</sup>	12.20 <sup>***</sup>	0.94 <sup>ns</sup>	1.60 <sup>ns</sup>	9.43 <sup>***</sup>	5.70 <sup>***</sup>	1.31 <sup>ns</sup>	8.55 <sup>***</sup>
Treatment (F values)	3.85 <sup>ns</sup>	0.001 <sup>ns</sup>	11.87 <sup>**</sup>	9.97 <sup>**</sup>	0.61 <sup>ns</sup>	31.74 <sup>***</sup>	3.20 <sup>ns</sup>	35.08 <sup>***</sup>	37.96 <sup>***</sup>	4.74 <sup>**</sup>
Genotype x Treatment (F values)	4.87 <sup>*</sup>	2.26 <sup>ns</sup>	2.06 <sup>ns</sup>	0.33 <sup>ns</sup>	1.18 <sup>ns</sup>	2.50 <sup>ns</sup>	7.86 <sup>***</sup>	9.07 <sup>***</sup>	0.50 <sup>ns</sup>	4.13 <sup>**</sup>

SIS, salt injury score; CHL, chlorophyll content, SL, shoot length; RL, root length; Trait means are averages of three replications, SNC, shoot sodium concentration; SKC, shoot potassium concentration, RNC, root sodium concentration; RKC, shoot potassium concentration; SNaK, ratio of sodium and potassium concentration in shoot; RNaK, ratio of sodium and potassium concentration in root

\*, \*\*, \*\*\* indicate significance at 0.05, 0.01, and 0.001 probability level

a, b, c, d represent Tukey lettering for determining difference among genotypes and shared letter between the genotypes indicates no significant difference at 0.05 probability level.

**Supplementary Table S2.** Trait means for ten morpho-physiological parameters in rice genotypes at the seedling stage under control condition.

Genotype	Pokkali	Geumgangbyeon	Mermentau	Bengal
SIS	1 ± 0.0	1 ± 0.0	1 ± 0.0	1 ± 0.0
CHL (SPAD units)	32.56 ± 0.64	29.05 ± 1.05	31.96 ± 2.7	32.86 ± 2.2
SL (cm)	47.22 ± 2.9	36.66 ± 2.3	40.38 ± 3.9	45 ± 2.58
RL (cm)	13.72 ± 2.42	10.55 ± 1.17	9.64 ± 1.03	9.66 ± 0.76
SNC (mmol kg <sup>-1</sup> )	90.47 ± 7.7	45.58 ± 5.46	18.65 ± 2.32	72.52 ± 5.44
SKC (mmol kg <sup>-1</sup> )	1463.003 ± 89.9	1334.05 ± 101.34	1237.35 ± 123.24	1538.22 ± 121.94
RNC (mmol kg <sup>-1</sup> )	213.09 ± 10.4	135.54 ± 17.66	95.48 ± 18.82	227.95 ± 23.22
RKC (mmol kg <sup>-1</sup> )	2466.44 ± 168.49	2124.25 ± 102.78	2675.76 ± 112.76	2090.95 ± 132.70
SNaK (ratio)	0.0616 ± 0.003	0.03 ± 0.02	0.01 ± 0.01	0.04 ± 0.009
RNaK (ratio)	0.08 ± 0.01	0.06 ± 0.02	0.03 ± 0.01	0.11 ± 0.02

SIS, salt injury score; CHL, chlorophyll content, SL, shoot length; RL, root length; Trait means are averages of three replications, SNC, shoot sodium concentration; SKC, shoot potassium concentration, RNC, root sodium concentration; RKC, shoot potassium concentration; SNaK, ratio of sodium and potassium concentration in shoot; RNaK, ratio of sodium and potassium concentration in root