

Supplementary Table 1 Primer sequences used for real-time gene expression analysis in the study

Gene	Primer sequences (5'-3')	Amplicon length (bp)	Reference
<i>TaUBQ</i>	F-TTTTGTAAGACCTCACCG	20	Kang <i>et al.</i> (2016)
	R-GATGCCCTCCTTGTCCTG	18	
<i>TaHKT2</i>	F- GATCCACTCAACTTCTCCAC	20	Irshad <i>et al.</i> (2022)
	R- TCATACTTTCCAGGATTTAC	20	
<i>TaSOS1</i>	F-GTTGTCGGTGAGGTCGGAGGG	21	Jiang <i>et al.</i> (2021)
	R- TCATCTTCTCCTACCGCCCTGC	22	
<i>TaNHX1</i>	F-CTCAAGGGTGACTACCAAGCA	21	Sharma <i>et al.</i> (2023)
	R-CCAATGCATCCATCCCGAC	20	

Kang H, Zhang M, Zhou S, Guo Q, Chen F, Wu J and Wang W. 2016. Overexpression of wheat ubiquitin gene, Ta-Ub2, improves abiotic stress tolerance of *Brachypodium distachyon*. *Plant Science* **248**: 102–15.

Sharma P, Mishra S, Pandey B and Singh G. 2023. Genome-wide identification and expression analysis of the NHX gene family under salt stress in wheat (*Triticum aestivum* L). *Frontiers in Plant Science* **14**: 1266699.

Supplementary Table 2 Factor loading corresponding to six principal components

	PC1	PC2	PC3	PC4	PC5	PC6
CHL	0.149	0.305	-0.067	-0.017	-0.093	0.256
Na ⁺	-0.080	-0.390	-0.073	0.287	0.608	-0.132
K ⁺	-0.028	-0.305	0.351	0.571	0.122	0.178
K ⁺ /Na ⁺	0.055	0.044	0.466	0.393	-0.456	0.267
DTH	-0.095	0.483	0.125	0.248	0.120	-0.307
PH	0.252	-0.283	0.059	-0.287	-0.012	0.493
SL	0.203	0.315	-0.144	0.109	0.381	0.510
SPS	0.124	0.405	-0.217	0.277	0.201	0.142
FLL	0.318	-0.156	-0.434	0.298	-0.313	-0.143
FLA	0.382	-0.183	-0.421	0.243	-0.156	-0.067
TGW	0.362	-0.105	0.185	-0.223	0.247	0.045
GY	0.486	0.042	0.301	-0.081	0.118	-0.267
BY	0.474	0.112	0.269	-0.018	0.033	-0.313

C, Control; S Sodicity; CHL, Chlorophyll content (mg^g FW); Na⁺, Sodium content (mg^g DW); K⁺, Potassium content (mg^g DW); K⁺/Na⁺, Potassium to sodium ratio; DTH, Days to heading; PH, Plant height (cm); SL, Spike length (cm); SPS, Spikelets/spike; FLL, Flag leaf length (cm); FLA, Flag leaf area (cm²); TGW, 1000-grain weight (g); GY, Grain yield (g); BY, Biological yield (g).