Multifunctional activities of ERF109 as affected by salt stress in Arabidopsis

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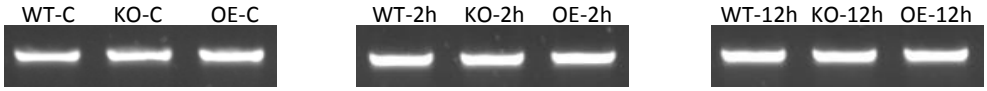
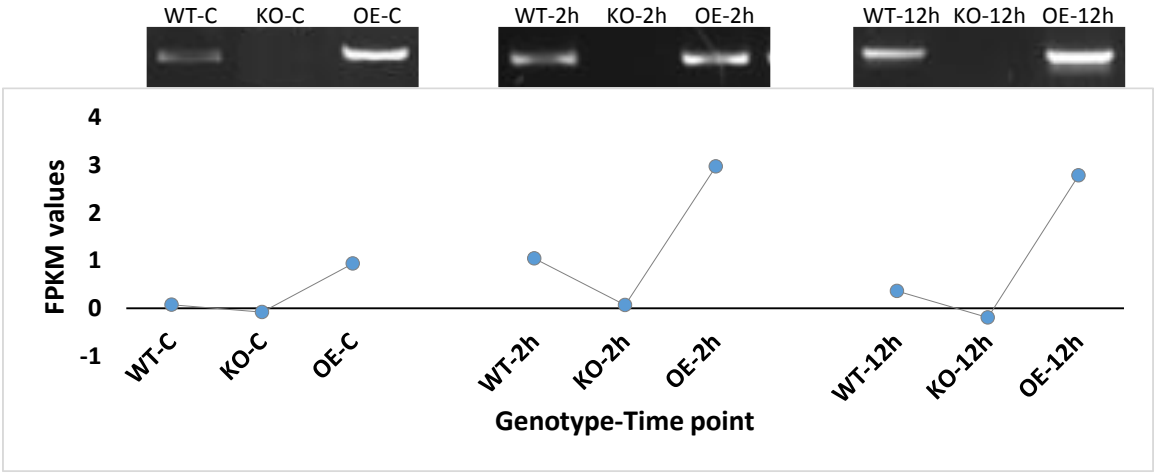
(a) *actin* gene



(b) *ERF109* gene



(c) Selected genes of Cluster 2

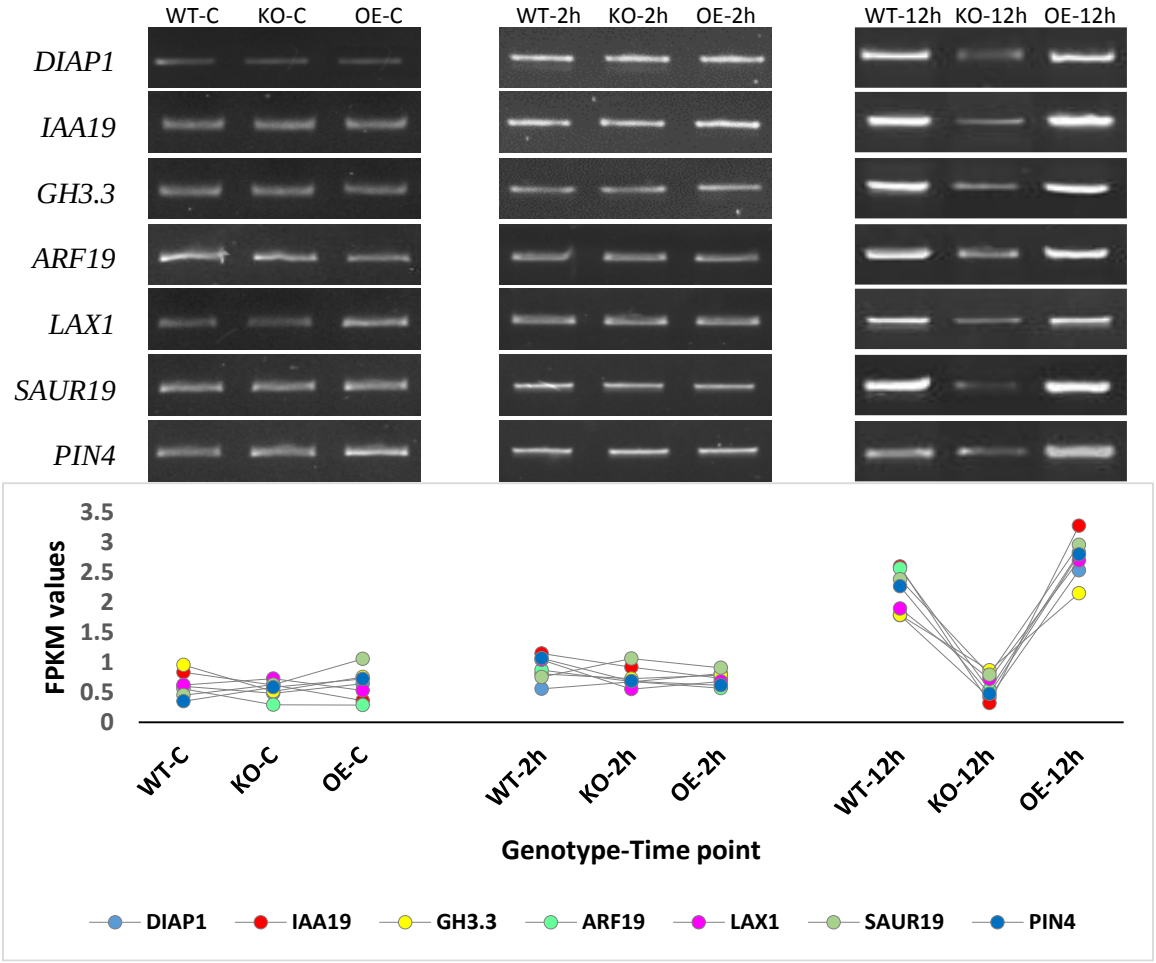


Figure S1| Semi-quantitative RT-PCR and profiles of FPKM values resulting from RNA-Seq analysis for *ERF109* transcript (b) as well as seven selected upregulated transcripts namely *DIAP1*, *IAA19*, *GH3.3*, *ARF19*, *LAX1*, *SAUR19* and *PIN4* (c) of clusters 1 and 2, respectively, used for validating RNA-Seq data of WT, KO^{ERF109} and OE^{ERF109} *Arabidopsis* leaves collected at 2 and 12 h time points of salt stress treatment as well as control (C) leaves. The "*actin*" was used as the unregulated house-keeping gene (a). WT = wild type, C = control untreated plant at 12 h time point, KO = knocked out mutant, OE = overexpressed mutant, 2 h = plants treated with salt stress (200 mM NaCl) for 2 h, while 12 h = plants treated with salt stress (200 mM NaCl) for 12 h.

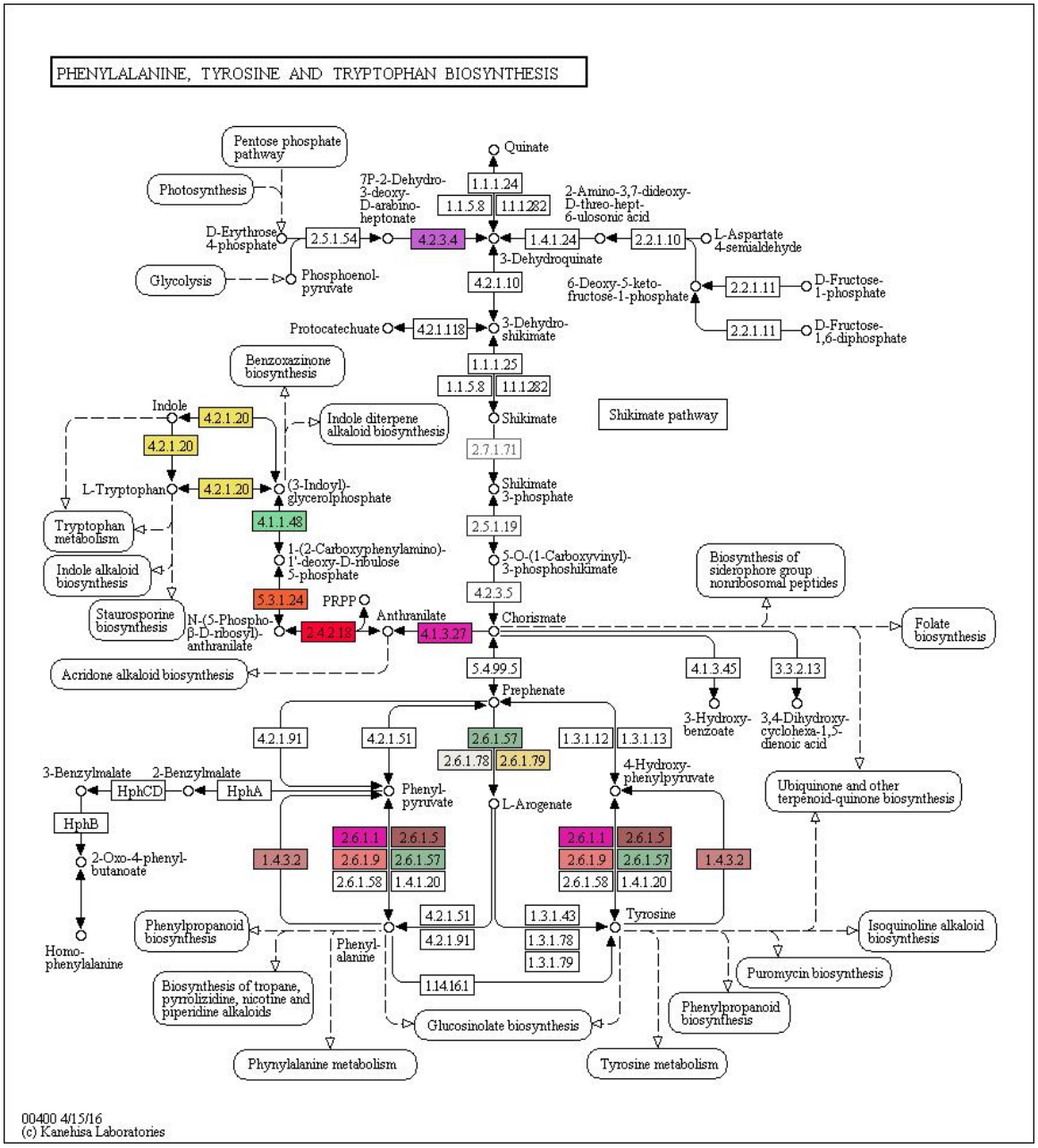


Figure S2| Enzymes in the phenylalanine, tyrosine and tryptophan biosynthesis pathway in leaves positively responded to salt stress treatment (200 mM NaCl) at 12 h time point. Highly activated enzymes are shown in colored boxes, while the enzymes with unchanged activation rates are shown in uncolored boxes. Different box colors in the pathway indicates different highly activated enzymes (Kanehisa et al., 26-28).

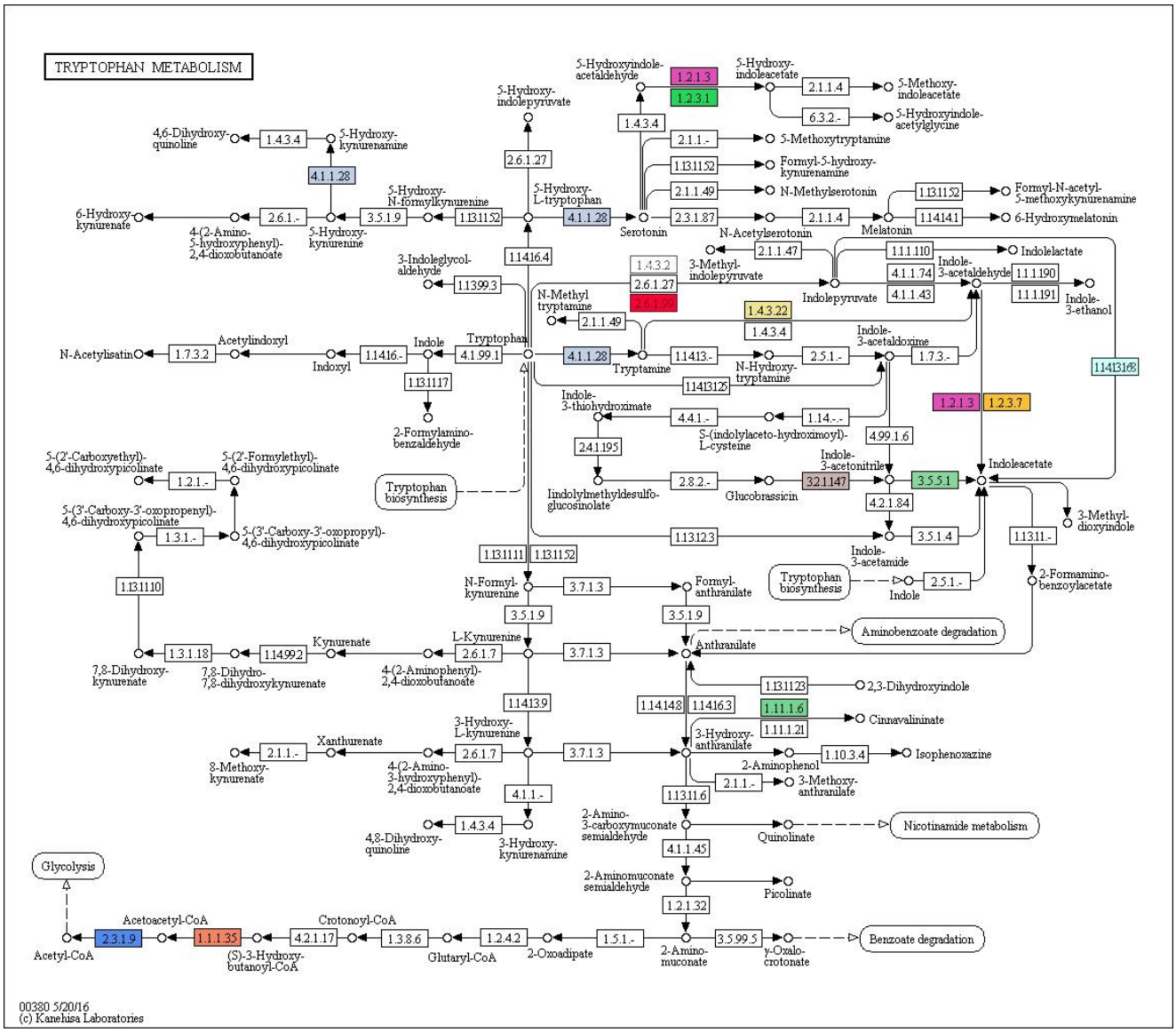


Figure S3| Enzymes in the tryptophan metabolism pathway in leaves positively responded to salt stress treatment (200 mM NaCl) at 12 h time point. Highly activated enzymes are shown in colored boxes, while the enzymes with unchanged activation rates are shown in uncolored boxes. Different box colors in the pathway indicates different highly activated enzymes (Kanehisa et al., 26-28).

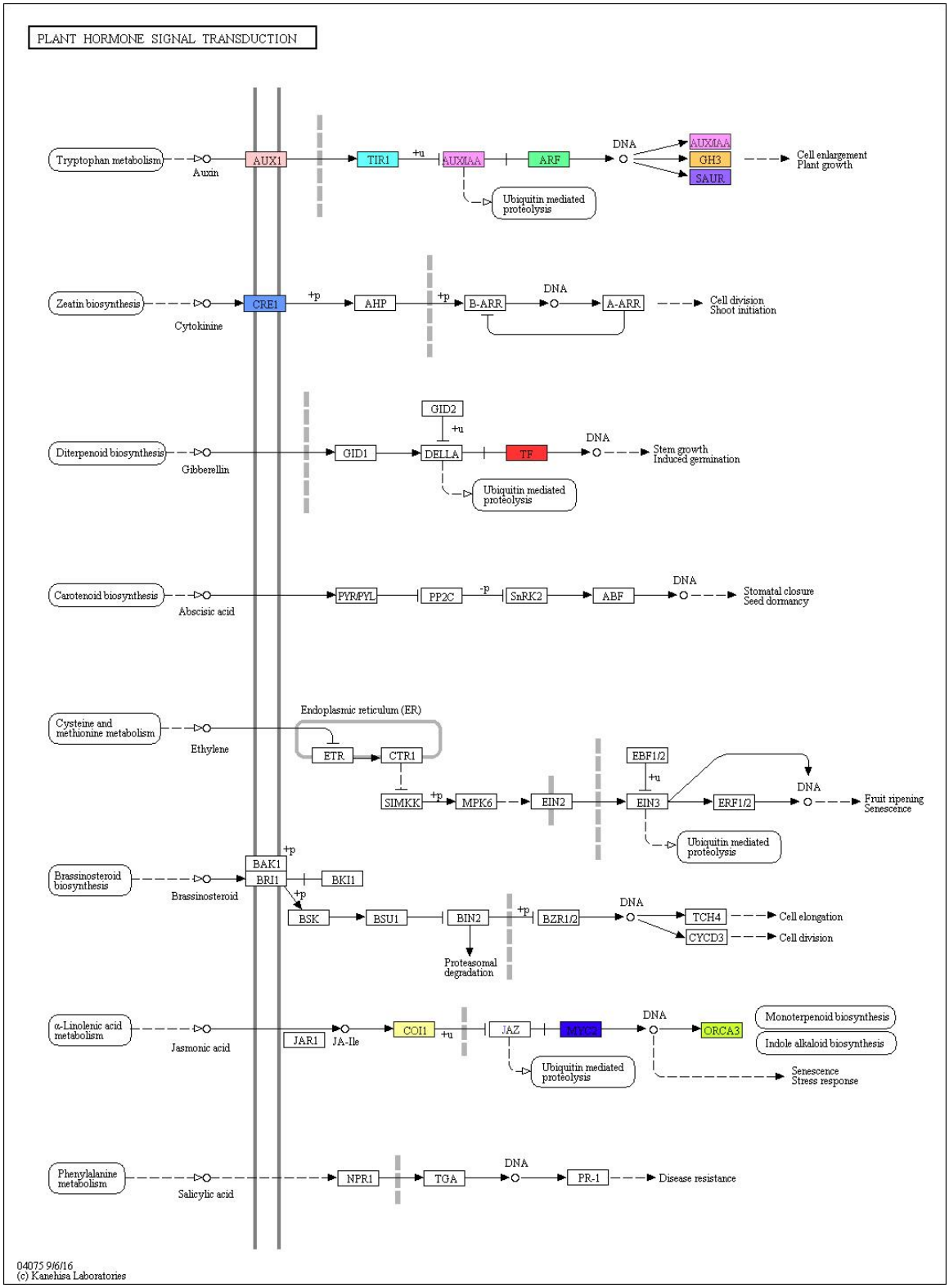


Figure S4| Enzymes in the plant hormone signal transduction pathway in leaves positively responded to salt stress treatment (200 mM NaCl) at 12 h time point. Highly activated enzymes are shown in colored boxes, while the enzymes with unchanged activation rates are shown in uncolored boxes. Different box colors in the pathway indicates different highly activated enzymes (Kanehisa et al., 26-28).

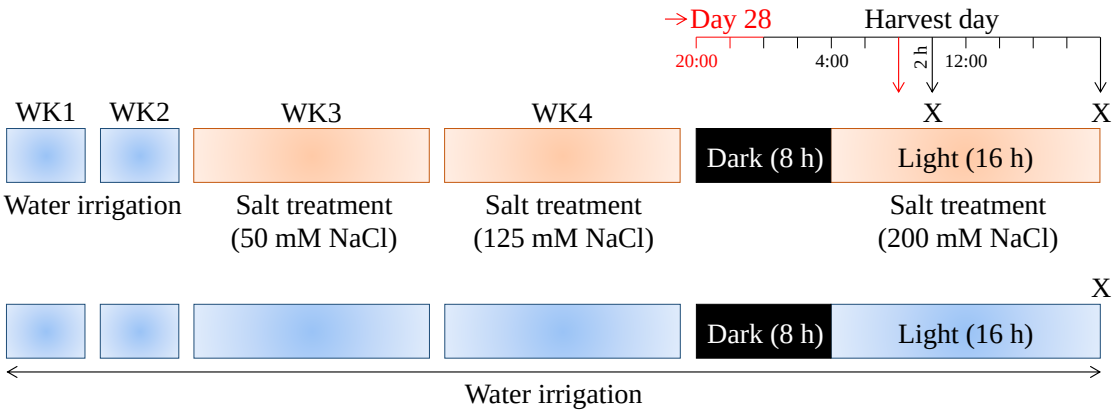


Figure S5| Schematic representation of the setup of salt stress experiment indicating the time of salt treatment at the harvest day (indicated by vertical red arrow), harvest time points (indicated by vertical black arrows) for salt-treated and untreated samples (X) across photoperiod of the harvest day.