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Transcriptional regulation of salinity stress in plants: A short review

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ABSTRACT Among various abiotic stresses, salinity is of much concern that arrests the crop productivity. A high concentration of salt in soil may affect plant growth due to ionic and osmotic stresses. After marginal success of conventional breeding approaches to develop a stress tolerant trait, the transgenic approach appears to be a boon to breed stress resistant crops. In this regard, transcription factors (TFs) provide a carrier for genetic engineering due to their unique roles in regulation and modification of different stress-responsive genes. These TFs include various families, like AP2/ERF, bZIP, NAC, MYB and WRKY which exhibit higher correlations with salinity. In this short review, an attempt has been made to highlight the role of TFs in regulating salinity stress in plants.

Keywords: Na⁺/H⁺ antiporters, Osmolyte, Salinity tolerance, Transcription factors

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