



## A REVIEW

# Spice crops tolerant to salinity and alkalinity

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**Abstract :** Tolerance and yield of a crop are complex genetic traits, which are difficult to maintain simultaneously since salt stress may occur as a catastrophic agent, be imposed continuously or intermittently or become gradually more severe. Salinity and alkalinity stress have a major impact on spices in the form of their growth, development and yield. Adverse effects of salinity might be due to ion cytotoxicity and osmotic stress, which disrupt homeostasis in water potential and ionic distribution due to disordering in cohesions of membrane lipids and proteins and influence various physiological and biochemical processes. To review the tolerance of spices to salinity and alkalinity, the present paper collates the existing experimental data sets, establishing the salt tolerance limits under saline or alkali environment either in soil root zone or which is created due to the application of saline or alkali irrigation water for crop production. Studies show that the salt affected areas and saline irrigation water can be utilized satisfactorily to raise forest and fruit tree species, forage grasses, conventional and non-conventional crops, oil seed crops, spice crops of high economic value, petro-crops and flower plants.

**Key Words :** Spice crops, Salinity, Saline soil, Saline water, Varietal tolerance

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