

EFFECT OF FOLIAR APPLICATION BY ASCORBIC AND SALICYLIC ACIDS IN ACTIVITY OF NON-ENZYMATIC ANTIOXIDANTS OF C₃ AND C₄ PLANTS UNDER SALT STRESS

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ABSTRACT

The experiment was conducted in fields of college of Agriculture _ University of Diyala during spring season 2013 to study the impact of exogenous application of ascorbic acid (AsA) and salicylic acid (SA) at concentration 2 and 0.2 mM respectively on sunflower (C₃) and maize (C₄) plants after exposure them to salt stress using the salt of NaCl were: control, 50 and 100 mM respectively. The results of this experiment were significantly increasing in content of total phenols and α _tocopherol, however the content of β _carotene and H₂O₂ were decreased under salt stress. Foliar application of AsA and SA on C₃ and C₄ plants which grow under salt stress induction the non-enzymatic system. The content of total phenols, α _tocopherol and β _carotene increased with foliar application of ascorbic acid and salicylic acid, however the content of H₂O₂ was decreased.

Key words: Ascorbic acid, Salicylic acid, α -tocopherol, β -carotene, Total phenols.