

RESEARCH PAPER

ADVANCE RESEARCH JOURNAL OF  
**C R P**  
**IMPROVEMENT**  
Volume 7 | Issue 1 | June, 2016 | 100-105  
••••• e ISSN-2231-640X

DOI:  
10.15740/HAS/ARJCI/7.1/100-105  
Visit us: [www.researchjournal.co.in](http://www.researchjournal.co.in)

# Effect of exogenous application of salicylic acid on some morphological parameters in salt stressed tomato varieties

■ SARITA TRIPATHI<sup>1</sup>, PRAGATI MISRA<sup>2</sup>, SUCHIT A. JOHN<sup>1</sup>, PRADEEP K. SHUKLA AND P.W. RAMTEKE<sup>1</sup>

## AUTHORS' INFO

### Associated Co-author :

<sup>1</sup>Department of Biological Sciences,  
School of Basic Sciences, Sam  
Higginbottom Institute of  
Agriculture, Technology and  
Sciences, ALLAHABAD (U.P.)  
INDIA

<sup>2</sup>Department of Molecular and  
Cellular Engineering, Jacob School  
of Biotechnology and  
Bioengineering, Sam Higginbottom  
Institute of Agriculture, Technology  
and Sciences, ALLAHABAD (U.P.)  
INDIA

### Author for correspondence: PRADEEP K. SHUKLA

Department of Biological Sciences,  
School of Basic Sciences, Sam  
Higginbottom Institute of  
Agriculture, Technology and  
Sciences, ALLAHABAD (U.P.)  
INDIA  
Email: [pradeepshuklak@  
yahoo.co.in](mailto:pradeepshuklak@yahoo.co.in)

**ABSTRACT :** Salt stress is a major environmental constraint limiting plant productivity. Tomato (*Lycopersicon esculentum*) is one of the commodity vegetable that has recently been added to the list of the world's major food crops and is considered as one of the most popular vegetable. An experiment was conducted to study the effect of salicylic acid (SA) on tomato varieties grown in different levels of salt stress. Salicylic acid (SA) is a plant growth promoting compound relatively inexpensive and enhances growth and yield of crops under saline conditions. The effect of exogenous salicylic acid (25µM) application of with four NaCl concentrations (50mM, 100mM, 150mM and 200mM) stressed tomato varieties was investigated. Results on some morphological parameters as plant-height and number of leaves revealed that, salt stress reduced plant-height and number of leaves. While, exogenous application of salicylic acid promoted plant-height and number of leaves and counteracted the salt stress-induced inhibition of plant-height and number of leaves.

**KEY WORDS :** Salt-stress, Tomato, Salicylic acid, Plant-height

**How to cite this paper :** Tripathi, Sarita, Misra, Pragati, John, Suchit A., Shukla, Pradeep K. and Ramteke, P.W. (2016). Effect of exogenous application of salicylic acid on some morphological parameters in salt stressed tomato varieties. *Adv. Res. J. Crop Improv.*, 7 (1) : 100-105, DOI : 10.15740/HAS/ARJCI/7.1/100-105.

**Paper History :** Received : 01.02.2016; Revised : 17.04.2016; Accepted : 14.05.2016