

Study the Effect of Salinity Stress on Plant Growth

Dr. Swati Khrade¹, Miss. Muskan K. Daroge², Miss. Zainab S.Z. Kadiri³, Miss. Shifa I Dakhani⁴

Department of Botany

Anjuman Islam Janjira Degree College of Science, Murud-Janjira, Raigad^{1,2,3,4}

Abstract: Salinity is a major stress limit growth and productivity of plants in many areas of the world due to increasing use of good quality of water for irrigated and soil salinization. Plant accommodates or sufferance to salinity stress involves composite physiological characteristic, metabolic progressions and molecular or gene complex. An inclusive understanding on how plants respond to salinity stress at different levels and an integrated attitude of combining molecular tools with physiology and biochemical techniques are authoritative for the developmental varieties of plants in salt-affected areas.

Keywords: Microbiome, Plant Growth-Promoting Bacteria, etc.

REFERENCES

- [1] Ahmad, I., and Maathuis, F. J. M. (2014). Cellular and tissue distribution of potassium: physiological relevance, mechanisms and regulation. *J. Plant Physiol.* 171, 708–714. doi: 10.1016/j.jplph.2013.10.016
- [2] Ahmad, I., Devonshire, J., Mohamed, R., Schultze, M., and Maathuis, F. J. M. (2015). Overexpression of the potassium channel TPKb in small vacuoles confers osmotic and drought tolerance to rice. *New Phytol.* 209, 1040–1048. doi: 10.1111/nph.13708
- [3] Brady, C. J., Gibson, T. S., Barlow, E. W. R., Speirs, J., and Wyn Jones, R. G. (1984). Salt tolerance in plants. I. Ions, compatible organic solutes and the stability of plant ribosomes. *Plant Cell Environ.* 7, 571–578. doi: 10.1111/1365-3040.ep11591840
- [4] Chung, Y. M., Lee, S. B., Kim, H. J., Park, S. H., Kim, J. J., Chung, J. S., et al. (2008). Replicative senescence induced by Romo1-derived reactive oxygen species. *J. Biol. Chem.* 283, 33763–33771. doi: 10.1074/jbc.M805334200
- [5] Clemens, S., Antosiewicz, D. M., Ward, J. M., Schachtman, D. P., and Schroeder, J. I. (1998). The plant cDNA LCT1 mediates the uptake of calcium and cadmium in yeast. *Proc. Natl. Acad. Sci. USA* 95, 12043–12048. doi: 10.1073/pnas.95.20.12043
- [6] Johnson, M. K., Johnson, E. J., MacElroy, R. D., Speer, H. L., and Bruff, B. S. (1968). Effects of salts on the halophilic alga *Dunaliellaviridis*. *J. Bacteriol.* 95, 1461–1468.
- [7] Kachmar, J. F., and Boyer, P. D. (1953). The potassium activation and calcium inhibition of pyruvic phosphoferase. *J. Biol. Chem.* 200, 669–682.