

Evolution of Mineral Nutrition in Two Species of *Atriplex* (*halimus* and *canescens*) under Salt Stress

Authors : Z. Mahi, L. Marousset, C. Roudaut, M. Belkhodja, R. Lemoine

Abstract : The strong accumulation of salts in the soil as well as in irrigation water greatly disrupts the growth and development of almost all plants. The study of these disturbances in halophytes helps provide better guidance on the deteriorating effect of salinity. Evaluation of salt stress in two species of *Atriplex* (*halimus* and *canescens*) through the study of mineral nutrition (dosage of sodium and potassium) shows a variability of responses. The results show that the Na⁺ ion accumulates in the three organs whatever the applied concentration. This accumulation increases with the high salt concentrations in *halimus* whereas in *canescens*, 600 mM treatment shows a reduction of the amount of this element. A decrease in the amount of potassium is observed for all organs except *halimus* roots 100 mM. Unlike *halimus*, *canescens* K⁺ accumulates in high concentrations of salt at the roots and leaves. The ratio Na⁺/K⁺ decreases the salt by *halimus* against it increases in levels *canescens* roots and treated with high concentrations of NaCl (600 mM) leaves.

Keywords : *Atriplex*, *canescens*, *halimus*, Na⁺, K⁺, NaCl, tolerance

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020