Record Nr. UNINA9910437830203321 Ecophysiology and responses of plants under salt stress / / Parvaiz **Titolo** Ahmad, M.M. Azooz, M.N.V. Prasad, editors Pubbl/distr/stampa New York, : Springer, 2013 **ISBN** 1-283-84898-8 1-4614-4747-X Descrizione fisica 1 online resource (519 p.) Altri autori (Persone) **AhmadParvaiz** AzoozM. M PrasadM. N. V 571.2 Disciplina Soggetti Plant ecophysiology Plants - Adaptation Plant molecular biology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Preface -- Role of Ca2+ in alleviating salt stress -- An overview on the role of plant volatile organic compounds (VOCs) in salt stress --Adaptive Plasticity of salt stressed root systems -- Salt-stressed plants and their responses to cadmium -- Soil and water management for sustained agriculture in alluvial plains and floodplains exposed to salinity: A case study of Neretva river estuary -- In vitro culture and salt stress in plants -- Role of Arbuscular mycorrhiza in inducing resistance to salinity -- The role of NO in alleviating salt stress in plants -- Plant growth regulators and biomass partitioning in crops under salinity --Salt stress and Photosynthesis -- Role of Jasmonates in Plant Adaptation to Stress -- Salt stress and nitrogen and phosphorus metabolism in plants -- Proline and glycinebetaine: chemistry, synthesis and role in plants -- Non-enzymatic antioxidants and ROS as signaling molecules in plants under salt stress -- Role of polyamines in alleviating salt stress -- Salt stress: Causes, Types and Physiological

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Sommario/riassunto

Salt stress is one of the major abiotic stresses that imposes negative effect on plants and consequently on the plant productivity. The causal factors for salinity stress may be geological, climatic and hydrological in nature. Soil is an invaluable asset for plant productivity yielding a variety of products of economic use. Worldwide, huge loss of plant produce is incurred every year due to salinity. Prolonged salt stress would cause oxidative damage to plants. Resistance to environmental stress occurs when a plant withstands the imposed stress that may arise from either tolerance or a mechanism that would allow the plants to endure the situation. Although whole plant mechanisms can contribute to the avoidance of stress during the plants life cycle. tolerance can also occur at the cellular level. Plants are either dormant during the salt episode or there must be cellular adjustment. Compatible solutes and different enzymatic and non-enzymatic antioxidants that are produced by the plants during salt stress are implicated in salt tolerance. This volume provides background information about the causes and mechanisms of salt stress and tolerance in plants. Researchers, students, environmentalist, and other scientists will be benefited by this volume.