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Nota di contenuto	1. Omics Technologies for Abiotic Stress Tolerance in Plants: Current status and Prospects -- 2. Genome editing and abiotic stress Tolerance in Plants -- 3. Metabolomic Profiling of plants to understand reasons for plant stress resilience to abiotic stress -- 4. In Vitro Screening of Crop Plants for Abiotic Stress Tolerance -- 5. Open-source software tools, databases and resources for single cell and single cell-type metabolomics -- 6. Advances in functional genomics in investigating salinity tolerance in plants -- 7. Drought stress in Chickpea: Physiological, Breeding and Omics Perspectives -- 8. GM maize for abiotic stresses; Potentials and opportunities -- 9. Novel breeding and biotechnological approaches to mitigate effects of heat stress on cotton -- 10. Modulation Of Proteome And Phosphoproteome Under Abiotic Stress In Plants: An Overview -- 11. Ionomic approaches for the discovery of novel abiotic stress tolerance genes in plants -- 12.

Unravelling the complex networks involved in Plant stress tolerance through Metabolomics.

Sommario/riassunto

This edited volume summarizes the recent advancements made in plant science including molecular biology and genome editing , particularly in the development of novel pathways tolerant to climate change-induced stresses such as drought, extreme temperatures, cold, salinity, flooding, etc. These stresses are liable for decrease in yields in many crop plants at global level. Till date conventional plant breeding approaches have resulted in significant improvement of crop plants for producing higher yields during adverse climatic conditions. However, the pace of improvement through conventional plant breeding needs to be accelerated in keeping with the growing demand of food and increasing human populationl, particularly in developing world. This book serves as a comprehensive reference material for researchers, teachers, and students involved in climate change-related abiotic stress tolerance studies in plants.
