

A close examination of current research on abiotic stresses in various plant species

The unpredictable environmental stress conditions associated with climate change are significant challenges to global food security, crop productivity, and agricultural sustainability. Rapid population growth and diminishing resources necessitate the development of crops that can adapt to environmental extremities. Although significant advancements have been made in developing plants through improved crop breeding practices and genetic manipulation, further research is necessary to understand how genes and metabolites for stress tolerance are modulated, and how cross-talk and regulators can be tuned to achieve stress tolerance.

Molecular Plant Abiotic Stress: Biology and Biotechnology is an extensive investigation of the various forms of abiotic stresses encountered in plants, and susceptibility or tolerance mechanisms found in different plant species. In-depth examination of morphological, anatomical, biochemical, molecular, and gene expression levels enables plant scientists to identify the different pathways and signaling cascades involved in stress response. This timely book:

- Covers a wide range of abiotic stresses in multiple plant species
- Provides researchers and scientists with transgenic strategies to overcome stress tolerances in several plant species
- Compiles the most recent research and up-to-date data on stress tolerance
- Examines both selective breeding and genetic engineering approaches to improving plant stress tolerances
- Written and edited by prominent scientists and researchers from across the globe

Molecular Plant Abiotic Stress: Biology and Biotechnology is a valuable source of information for students, academics, scientists, researchers, and industry professionals in fields including agriculture, botany, molecular biology, biochemistry and biotechnology, and plant physiology.

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