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Anatomy, Organelles; B. Physiological Factors; C. Resistance Induced by Applied Substances; Chapter 9. Theories of Freezing Injury and Resistance; A. Primary, Direct (Intracellular) Freezing Injury; B. Secondary, Freeze-Induced Dehydration Injury; Chapter 10. Molecular Basis of Freezing Injury and Tolerance
A. Evidence for a Molecular Basis B. Membrane Damage as the Initial Injurious Strain; C. The SH Hypothesis of Freezing Injury; D. Mechanism of Freeze-Induced Membrane Damage; E. Freezing Resistance and the Hardening Mechanism; F. Metabolic Control of the Hardening Process; Bibliography; PART IV: HIGH-TEMPERATURE STRESS; Chapter 11. High-Temperature or Heat Stress; A. Quantitative Evaluation of Stress; B. Limit of High-Temperature Survival; C. The Time Factor; D. Occurrence of High-Temperature Stress and Injury in Nature; E. Nature of the Injury; F. Protective Substances
Chapter 12. Heat Resistance A. Heat Avoidance; B. Heat Tolerance; C. Molecular Aspects of Thermotolerance; D. Relationship between Thermotolerance and Low-Temperature Tolerance; Bibliography; Index

Sommario/riassunto

Responses of Plants to Environmental Stresses, Second Edition, Volume I: Chilling, Freezing, and High Temperature Stresses encompasses essentially all the environmental stresses that have been intensively investigated. However, this edition does not include mineral deficiencies, which comprise too broad and involve a field to be incorporated with other stresses. This book attempts to analyze the possibilities of developing unified concepts of stress injury and resistance.