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| Nota di contenuto | Title Page; Table of Contents; List of contributors; Preface; About the editors; CHAPTER 1: Biotechnological applications to improve salinity stress in wheat; 1.1 Introduction; 1.2 Salinity stress is a striking environmental threat to plants; 1.3 Effects of salinity stress on wheat; 1.4 Wheat natural tolerance and defence against salinity; 1.5 Biotechnological applications to improve salinity stress in wheat; 1.6 Conclusion and future perspectives; References; CHAPTER 2: Soybean under abiotic stress: Proteomic approach; 2.1 Introduction; 2.2 Proteomic approach; 2.3 Proteomics for soybean 2.4 Proteomics of soybean under abiotic stresses2.5 Conclusion and future perspectives; Acknowledgement; References; CHAPTER 3: Proteomic analysis of food crops under abiotic stresses in the context of climate change; 3.1 Introduction; 3.2 Atmospheric greenhouse gas composition; 3.3 Temperature; 3.4 Conclusions and future perspectives; References; CHAPTER 4: Transcriptome modulation in rice under abiotic stress; 4.1 Introduction; 4.2 Drought stress; 4.3 Salt stress; 4.4 Temperature stress; 4.5 Heavy metals; 4.6 Common stress-responsive genes; 4.7 Conclusions and future prospects AcknowledgementsReferences; CHAPTER 5: Sulphur: Role in alleviation of environmental stress in crop plants; 5.1 Introduction; 5.2 Sulphur |

assimilation and the most important S compounds in plants; 5.3 Heavy metals; 5.4 Salinity; 5.5 Drought; 5.6 Hydrogen sulphide; 5.7 Conclusions and future prospects; References; CHAPTER 6: Proline and glycine betaine modulate cadmium-induced oxidative stress tolerance in plants: Possible biochemical and molecular mechanisms; 6.1 Introduction; 6.2 Cadmium toxicity symptoms in plant cells and physiological and cellular responses 6.3 Possible mechanisms of cadmium tolerance in plants 6.4 Cadmium-induced ROS generation in plant cells; 6.5 Detoxification of ROS under Cd stress; 6.6 Modulation of antioxidant enzyme activities in response to cadmium stress; 6.7 Methylglyoxal and glyoxalase enzyme activities under cadmium stress; 6.8 Co-ordinated induction of MG and ROS detoxification systems in inducing heavy metal stress tolerance, including Cd stress; 6.9 Exogenous proline and betaine pretreatment and Cd stress tolerance in relation to ROS and MG detoxification; 6.10 Conclusions and future perspectives; References
CHAPTER 7: Enhancement of vegetables and fruits growth and yield by application of brassinosteroids under abiotic stresses: A review 7.1 Introduction; 7.2 Environmental stresses; 7.3 Brassinosteroids; 7.4 Role of BRs on the growth and yield of vegetables and fruits under various environmental stresses; 7.5 Conclusion and future prospects; Acknowledgements; References; CHAPTER 8: Physiological mechanisms of salt stress tolerance in plants: An overview; 8.1 Introduction; 8.2 Adverse impact of salinity on plants; 8.3 Plant performance under saline conditions; 8.4 Mechanism of salinity tolerance 8.5 Salt and water stress
