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Nota di contenuto	Part I. Sustainability, Nutrition and Pharmaceuticals -- 1. Sustainable Agriculture and Plant Breeding -- 2. Breeding Crop Plants for Improved Human Nutrition through Biofortification: Progress and Prospects -- 3. Role of Genomics in Enhancing Nutrition Content of Cereals -- 4. Molecular Farming using Transgenic Approaches -- Part II. Forage and Tree Traits -- 5. Forages: Ecology, Breeding Objectives and Procedures -- 6. Breeding vis-à-vis Genomics of Tropical Tree Crops -- 7. Coconut Breeding in India -- Part III. Abiotic Stress Tolerance -- 8. Molecular Breeding to Improve Plant Resistance to Abiotic Stresses -- 9. Single Nucleotide Polymorphism (SNP) Marker for Abiotic Stress Tolerance in Crop Plants -- 10. Transgenic Approach for Abiotic Stress Tolerance in Crop Plants -- 11. Breeding Strategies to Enhance Drought Tolerance in Crops -- 12. Breeding Strategies for Enhanced Plant Tolerance to Heat Stress -- 13. QTLs for Genetic Improvement under Global Climate Changes -- 14. Genotype x Environment Interaction Implication: A Case Study of Durum Wheat Breeding in Iran -- Part IV. Biotic Stress Resistance -- 15. Breeding Strategies for Improving Plant Resistance to Diseases -- 16. Breeding and Genetics of Resistance to Fusarium Wilt in Melon -- 17. Viral, Fungal and Bacterial Disease

Resistance in Transgenic Plants -- 18. Current Status of Bacillus thuringiensis:Insecticidal Crystal Proteins and Transgenic Crops -- Index.

Sommario/riassunto

Plant breeders and geneticists are under constant pressure to sustain food production by using innovative breeding strategies and introducing minor crops which are well adapted to marginal lands, provide a source of nutrition, and have abiotic and biotic stress tolerance, to feed an ever-increasing human population. The basic concept of this book is to examine the use of innovative methods augmenting traditional plant breeding towards the development of new crop varieties under different environmental conditions to achieve sustainable food production. The book consists of two volumes. This is volume 2 which contains 18 chapters highlighting breeding strategies for specific plant traits including improved nutritional and pharmaceutical properties as well as enhanced tolerance to insects, diseases, drought, salinity and temperature extremes expected under predicted global climate change. Chapters addressing these topics are grouped into four parts: Part I, Sustainability, Nutrition and Pharmaceuticals; Part II, Forage and Tree Traits; Part III, Abiotic Stress Tolerance; and Part IV, Biotic Stress Resistance. The book is a valuable resource for students, researchers, scientists, commercial producers and seed companies as well as consultants and policymakers interested in agriculture, particularly in modern breeding technologies.