1. Record Nr. UNINA9910765539803321 Autore Wang Haiping Titolo Case Studies of Breeding Strategies in Major Plant Species / / Haiping Wang London, England:,: IntechOpen,, 2023 Pubbl/distr/stampa **ISBN** 1-80356-105-X Descrizione fisica 1 online resource (422 pages) Disciplina 581.38 Soggetti Plant species **Breeding** Lingua di pubblicazione Inglese **Formato** Materiale a stampa

Livello bibliografico Monografia

Nota di contenuto

Table of Contents -- 1. Revolution in Plant General Contents -- 1. Revolution Conte

Table of Contents -- 1. Revolution in Plant Genetic Resources -- 2. Genomic Selection: A Faster Strategy for Plant Breeding -- 3. Molecular Techniques for Essentially Derived Varieties -- 4. Speed Breeding: A Propitious Technique for Accelerated Crop Improvement -- 5. Non-Coding RNA and Its Prospective Utilization in Plant Breeding -- 6. Pathogenesis-Related Proteins and Their Transgenic Expression for Developing Disease-Resistant Crops: Strategies Progress and Challenges -- 7. Recent Advancements in Genetic Improvement of Food Legume Crops -- 8. Sovbean Cultivation Technology Innovation and Environmentally Friendly Pest Control in Paddy Fields in South Sulawesi, Indonesia -- 9. Breeding of Major Legume Crops through Conventional and Molecular Techniques -- 10. Soybean Molecular Design Breeding -- 11. Accelerated Generation of Elite Inbreds in Maize Using Doubled Haploid Technology -- 12. Accelerating Breeding for Drought Tolerance in Sorghum (Sorghum bicolor): An Integrated Approach --13. New Perspectives in Grapevine (Vitis spp.) Breeding -- 14. An Update on Radish Breeding Strategies: An Overview -- 15. Pollination Biology and Environmental Water Pollution Indicator of Onion (Allium cepa L.) -- 16. Genetic Improvement of Stevia: A Natural Non-Calorie Sweetener -- 17. Monitoring the Aroma Compounds of Vicia faba L var. Major and var. Minor -- 18. Application of Tissue Culture Techniques to Improve the Productivity of Medicinal Secondary Products from Medicinal Plants -- 19. Genetically Modified Crops and Their Impact on

New Era of Agriculture.

Sommario/riassunto

Conventional plant breeding has significantly improved crop yield, disease resistance, and adaptability to the environment; however, it is difficult to cultivate breakthrough new varieties using conventional breeding techniques. As such, new and novel breeding techniques are being developed. This book presents a comprehensive overview of plant breeding. It is organized into four sections on "Genetic Resources for Plant Breeding", "Breeding Theory and Strategy", "Breeding Practice and Cases", and "The Perspective for Plant Breeding".