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Soggetti	Plant biotechnology Plant genetics Agricultural biotechnology Agricultural genome mapping Plant Biotechnology Plant Genetics Agricultural Biotechnology Agricultural Genetics
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1. The role of epigenetic transcriptional regulation in Brassica vegetables: a potential resource for epigenetic breeding -- 2. Melon (Cucumis melo L.): Genomics and Breeding -- 3. Ash gourd genomics: achievements, challenges and future perspectives -- 4. Understanding the Genetics and Genomics of Vegetable Grafting to ensure Yield Stability -- 5. Biotechnological implications in tomato for drought stress tolerance -- 6. Spinach (Spinacia oleracea L.) breeding – from classical to genomics-centric approach -- 7. Impact of Biotic and Abiotic Stress on Onion Production: Potential Mitigation Approaches in Modern Era -- 8. Advances in Summer Squash (Cucurbita pepo L.) Molecular Breeding Strategies -- 9. Enhancing Spinacia oleracea L. Breeding in the Post Genomics era -- 10. Breeding strategies of beetroot and a future vision in the post-genomic era -- 11. Advances in Lettuce (Lactuca spp.) Molecular Breeding Strategies -- 12. Integrated use of molecular and omics approaches for breeding high

yield and stress resistance Chili peppers -- 13. Smart Plant Breeding for Potato in the Post Genomics Era -- 14. Current overview of breeding and genomic studies of white button mushroom (*Agaricus bisporus*) -- 15. Insight into carrot carotenoids in post-genomic world for higher nutrition -- 16. Advances in potato breeding for abiotic stress tolerance -- 17. Genomics Assisted Breeding for Abiotic Stress in *Pisum* crop.

Sommario/riassunto

This book dispenses a comprehensive coverage of up-to-date account of genomics and genome editing enriched smart plant breeding approaches for enhancing genetic gains in vegetable crops in the post-genomics era. The main focus of the present volume is to illuminate the applications of new techniques evolved in the post-genomics era. The techniques covered are high-throughput sequencing of DNA and RNA, genome editing, epigenetics and epigenomics, genotype by sequencing (GBS), QTL-seq and RNA-seq for transcriptome analysis. Vegetables are the important component of healthy diet, source of energy and hold a promising position in building up a strong immunity. Zero hunger and attaining the food and nutritional security is the top priority of United Nations development goals. Smart breeding of food and vegetable crops to fight the challenges ahead in sustainable manner by keeping the harmony with nature is an important approach to fulfill the United Nations Sustainable Development Goals (UN-SDGs). This edited book highlights the modern results in smart vegetable breeding in the post genomics era and forecasts crucial areas of future needs. It is an important reference for the, readers, students, researchers, scientists in academia and research industries to provide them comprehensive information of innovative approaches for crop improvement in the post-genomics era and in the era of and climate change. Even the readers, academia, social activists, and others fond of reading will get a fair idea of journey travelled so far and future roadmap for fighting the challenges ahead to meet the sustainable development goals.
