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Nota di contenuto	Chapter 1. Biofortification of staple crops: Present status and future strategies -- Chapter 2. Historical overview of biofortification in crop plants and its implications -- Chapter 3. Genetic fortification of rice to address hidden hunger: progress and prospects -- Chapter 4. Advances in Wheat biofortification and Mainstreaming Grain Zinc in CIMMYT Wheat -- Chapter 5. Biofortification of maize for nutritional security -- Chapter 6. Pearl millet: bio-fortification approaches in a micronutrient dense, climate-resilient nutri-cereal -- Chapter 7. Barley Biofortification -- Chapter 8. Prospects of Biofortification in Groundnut using Modern Breeding Approaches -- Chapter 9. Dry Bean Biofortification With Iron and Zinc -- Chapter 10. Lentil biofortification

-- Chapter 11. Biofortification of Mungbean -- Chapter 12. Biofortification of Cassava: Recent Progress and Challenges Facing the Future -- Chapter 13. Vegetable biofortification: An underexploited silver lining for malnutrition management -- Chapter 14. Transgenics for Biofortification with special reference to Rice -- Chapter 15. Agronomic and transgenic approaches for rice Zn biofortification -- Chapter 16. Agronomic approaches for biofortification of staple food crops -- Chapter 17. Micronutrients: Soil to seed -- Chapter 18. Pulse crop biofortification towards human health, targeting prebiotic carbohydrates, protein, and minerals -- Chapter 19. Biofortification of chickpea -- Chapter 20. Bifortifying sorghum for delivering grain micronutrients in high yielding cultivars with market preferred traits. .

Sommario/riassunto

This edited book brings together comprehensive information on various aspects of the biofortification of staple crops. It addresses the present status of food and nutritional security and highlights the importance of micronutrients in human health, a historical account of biofortification, current approaches and challenges, crop-specific biofortification efforts and various breeding approaches, including conventional, and genomics enabled improvement. It also explains the efficacy of biofortification, bioavailability, and future thrust. It is an inclusive source of information on different aspects of micronutrients in crops of global importance. Malnutrition is a serious global issue, with millions of people being undernourished, several suffering from micronutrient deficiencies, and the adult population struggling with obesity. Despite significant economic progress, South Asia and Sub-Saharan Africa are still home to an undernourished population. Nutrition-related health problems are related to hidden hunger and are widespread in the developing world. Women and preschool children are more vulnerable. Even though global food production has increased manifolds, estimates indicate that over 60% of the world’s population is deficient in essential micronutrients such as iron, zinc, iodine, and selenium, often causing health problems and developmental delays. Linking agricultural production with human nutrition and health is crucial for ensuring nutrition security. Much research has been carried out to assess genetic diversity related to micro-nutrients in staple crops, their bioavailability, and the efficacy of biofortified germplasm. Biofortified varieties developed in different crops through conventional breeding are being up-scaled for reducing the micronutrient deficiencies in other countries. This book is a ready reference for researchers, academicians, extension personnel, policymakers, students, and value chain stakeholdersengaged in agriculture, nutrition, and health sectors promoting nutrition-sensitive diets. .