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Nota di contenuto	Chapter 1. Production of Cellulose Nanofibrils and its Application to Food: A Review -- Chapter 2. Nanotechnology and Shelf-life of Animal Foods -- Chapter 3. Nanotechnology: Meat Safety Revolution -- Chapter 4. Marine Nanofactories in Food -- Industry: Friend or Foe -- Chapter 5. Revolutionizing the Food Supply Chain in the United States: The Impact of Nanotechnology -- Chapter 6. Nanotechnology in Packaging Industry and Its Food Packaging Applications -- Chapter 7. Nanobiosensors, as a Next Generation Diagnostic Device for Quality & Safety of Food and Dairy Product -- Chapter 8. Nano Molecular Imprinted Polymers (NanoMIPs) for Food Diagnostics and Sensor -- Chapter 9. Nanotechnology Applications in Food Industry -- Chapter 10. Impact of the Nanomaterials on Soil Bacterial Biodiversity -- Chapter 11. The Impact of Engineered Nanomaterials on Crops and Soil Microorganisms -- Chapter 12. Advancement of Nanotechnology Applications on Plant Nutrients Management and Soil Improvement -- Chapter 13. Biosynthesis of Nanoparticles and their Application in Pharmaceutical Industry -- Chapter 14. Nanomaterials acts as Plant Defense Mechanism -- Chapter 15. Phytoengineered Nanomaterials

and Their Applications -- Chapter 16. Plants and Carbon Nanotubes (CNT) Interface: Present Status and Future Prospects.

Sommario/riassunto

This book highlights the implications of nanotechnology and the effects of nanoparticles on agricultural systems, their interactions with plants as well as their potential applications as fertilizers and pesticides. It also discusses how innovative, eco-friendly approaches to improve food and agricultural systems lead to increased plant productivity. Further, it offers insights into the current trends and future prospects of nanotechnology along with the benefits and risks and their impact on agricultural ecosystems. Nanomaterials in agriculture reduce the amount of chemical products sprayed by means of smart delivery of active ingredients; minimize nutrient losses in fertilization; and increase yields through optimized water and nutrient management. There is also huge potential for nanotechnology in the provision of state-of-the-art solutions for various challenges faced by agriculture and society, both today and in the future. .
