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Autore	Husen Azamal
Titolo	Plant Response to Silver Nanoparticles : Plant Growth, Development, Production, and Protection / / edited by Azamal Husen
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	9789819773527 9819773520
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Descrizione fisica	1 online resource (336 pages)
Collana	Smart Nanomaterials Technology, , 3004-8281
Altri autori (Persone)	Husen
Disciplina	620.5 660.6
Soggetti	Nanobiotechnology Nanomedicine Plants - Disease and pest resistance Nanomedicine and Nanotoxicology Plant Immunity
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Plant response to silver nanoparticles in terms of growth, development, production, and protection: an overview -- 2. Beneficial and adverse effects of silver nanoparticles on plant -- 3. Beneficial and adverse effects of silver nanoparticles on rhizosphere biology -- 4. Genotoxicity of silver nanoparticles in plants and underlying mechanism -- 5. Proteomic study on the effects of silver nanoparticles under abiotic stress -- 6. Silver nanocomposite for improved plant-soil system and underlying mechanism -- 7. Interaction of arbuscular mycorrhizal fungi and silver nanoparticles in a soil matrix for enhanced plant growth and production -- 8. Effect of silver nanoparticles on seed germination and seedling growth -- 9. Mitigation of metal toxicity in plants using silver nanoparticles -- 10. Mitigation of drought stress in plants using silver nanoparticles.
Sommario/riassunto	This book looks at the plant response to silver nanoparticles (Ag-NPs), which showed both beneficial and harmful effects in a plant system. These responses of Ag-NPs are primarily dependent on the concentration, plant species or cultivars, exposure time, shape, and

size of NPs. In general, lower concentrations of Ag-NPs increase seed germination, rate of photosynthesis, and overall growth, but at higher concentrations, all these responses are declined in many plant species. Moreover, Ag-NPs at higher concentration induce stress and or phytotoxicity and produce reactive oxygen species which leads to the disruption of cellular metabolism. Ag-NPs exposure increased the number of chromosomal aberrations, micronuclei, and decreased the mitotic index in plant root tip cells. Proteomic study has shown that the exposure Ag-NPs resulted in an accumulation of protein precursors, indicative of the dissipation of a proton motive force. Ag-NPs also influence transcription of flowering key genes and thus delayed flowering time. A beneficial role of arbuscular mycorrhizal fungi in influencing the effects of Ag-NPs on plant-microbe systems in a soil matrix has been also examined. Beside the terrestrial plants, these particles have also influenced the growth of some wetland and aquatic plants, which are covered in this book. This book provides valuable information to scientists, researchers, and students, working specially on plant biology, plant nanobiotechnology, plant biochemistry, plant microbiology, agricultural and other allied subjects and or science.

2. Record Nr. UNINA9911019507603321

Autore	Ledouble Helene
Titolo	Popularizing Science : The Complex Terminological Interactions Between Scientific and Press Discourses Within the Field of Agroecology
Pubbl/distr/stampa	Newark : , : John Wiley & Sons, Incorporated, , 2024 ©2024
ISBN	9781394299003 1394299001 9781394298983 1394298986
Edizione	[1st ed.]
Descrizione fisica	1 online resource (230 pages)
Disciplina	501.4
Soggetti	Mass media and scientists Science journalism
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Title Page -- Copyright Page -- Contents -- Foreword -- Preface -- Acknowledgments -- Introduction -- Part 1 The Challenge of Popularizing Science -- Introduction to Part 1 -- Chapter 1 The Dialogue Between Science and Society -- 1.1. The popularizing project -- 1.1.1. How we talk about popular science -- 1.1.2. Promoting popularization -- 1.2. Science in the media and the multiplicity of actors -- 1.2.1. From scholarly knowledge to social knowledge -- 1.2.2. Perspectives on science and experts -- 1.3. Scientific and media approaches to popularization -- 1.3.1. Divergence between scientific and media approaches -- 1.3.2. Convergences between these approaches -- Chapter 2 Discourses on Science -- 2.1. Genres in scientific communication -- 2.2. Scientific discourse -- 2.2.1. Terminological variation in specialized discourse -- 2.2.2. Specialized and general language -- 2.3. Scientific media discourse -- 2.3.1. Language and variation in the popularization process -- 2.3.2. Parallel between popularization and education -- Chapter 3 Theoretical and Methodological Tools for Analysis -- 3.1. Identification and categorization of names and designations -- 3.1.1. Designations in a

Sommario/riassunto

This book delves into the complex interactions between scientific and media discourses, with a focus on agroecology. It examines how scientific knowledge is transformed into social knowledge through media channels, highlighting the challenges and opportunities of popularizing science. The author, Hélène Ledouble, explores the divergence and convergence of scientific and media approaches, the role of language in the popularization process, and the implications for public understanding of science. Targeted at academics, media professionals, and those interested in science communication, it provides insights into the dynamics of science in the public sphere, particularly through the lens of agroecology.