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Nota di contenuto	Preface -- Organic and Inorganic Fertilizer Contaminants in Agriculture -- Role of Nutrients in Plant Growth and Development -- Practice and Impact of Pesticides in Agricultural Crops -- Response of Organic and Inorganic Fertilizers on Soil Microbial Population and Yield of Plants -- An Overview of the Effect of Heavy Metals on Soil and Plant Growth -- Effect of Acid Rain on Crop Plants and its Mitigation Approaches -- Heavy Metals -- Heavy Metal Induced Gene Expression in Plants -- Nano-contaminants -- Heavy Metal Toxicity and Tolerance in Crop

Plants -- Planning and Engineering Applications of Agricultural Wastes and their Remediation Strategies -- The Use of Constructed Wetlands to Mitigate Pollution from Agricultural Runoff -- Role of Nitrogen and Agricultural Management in Changing Environment -- Efficient Biotransformation of Agricultural Waste in India -- Impact of Bio-fertilizers/ Mineral Fertilizers on Crop Production under Contaminated Soils -- Nutrient Management for Medicinal Plants grown in Calcareous Soils -- Intimidating Effects of Heavy Metals on Mentha Species and Its Mitigation Using Scientific Approaches -- Impact of Heavy Metals on Catharanthus roseus and Its Amelioration through Conceivable Approaches -- Role of Cobalt in Plants -- Phytoremediation of Contaminated Soils of Mining Areas -- Bioremediation of Toxic Pollutants -- Ecological Implications of Atmospheric Nutrient Deposition in Low-Nutrient Ecosystems -- Utilization of Sericulture Waste by Employing Possible Approaches -- Inimical Effects of Arsenic on the Plant Physiology and Possible Biotechnological Solutions to Mitigate Arsenic Induced Toxicity -- The Use of Vermicompost Leachate for Irrigation in Two South American Plant Species -- Index.

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### Sommario/riassunto

This comprehensive volume covers recent studies into agricultural problems caused by soil and water contamination. Considering the importance of agricultural crops to human health, the editors have focused on chapters detailing the negative impact of heavy metals, excessive chemical fertilizer use, nutrients, pesticides, herbicides, insecticides, agricultural wastes and toxic pollutants, among others, on agricultural soil and crops. In addition, the chapters offer solutions to these negative impacts through various scientific approaches, including using biotechnology, nanotechnology, nutrient management strategies, biofertilizers, as well as potent PGRs and elicitors. This book serves as a key source of information on scientific and engineered approaches and challenges for the bioremediation of agricultural contamination worldwide. This book should be helpful for research students, teachers, agriculturalists, agronomists, botanists, and plant growers, as well as in the fields of agriculture, agronomy, plant science, plant biology, and biotechnology, among others. It serves as an excellent reference on the current research and future directions of contaminants in agriculture from laboratory research to field application.

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