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Nota di contenuto	Part I: Biodiversity and Human Health Impacts of Agrochemicals -- Chapter 1. Agrochemicals: Safety Evaluation and Characterization for Human and Biodiversity -- Chapter 2. Agrochemical Use and Emerging Human and Animal Diseases -- Chapter 3. Global biodiversity decline and loss from agricultural intensification through agrochemical application -- Chapter 4. Evidence of the Toxic Potentials of Agrochemicals on Human Health and Biodiversity -- Chapter 5. Agrochemicals and Pollinator Diversity: A Socio-ecological Synthesis -- Chapter 6. One Health Implications of Agrochemicals and their Eco-benign Substitutes -- Chapter 7. Risk of Agrochemical on Biodiversity and Human Health: Implication on Conservation and Sustainable Mitigations Strategies -- Chapter 8. Mitigating the One Health Impacts of Agrochemicals through Sustainable Policies and Regulations -- Chapter 9. Health Implications of Agrochemicals - Nexus of their Impacts, Sustainable Management Approaches, and Policy Gaps -- Chapter 10. Detrimental Effects of Agrochemical-based Agricultural Intensification on Biodiversity: Evidence from Some Past Studies -- Part II: Food Production, Safety, Security, Sovereignty and the Economic Implications of Agrochemical Use -- Chapter 11. Food Safety and Agrochemicals: Risk Assessment and Food Security Implications --

Chapter 12. Chemical-based fruit ripening and the implications for ecosystem health and safety -- Chapter 13. Socio-economic and Ecological Values of Sustainable Alternatives to Pesticides -- Chapter 14. Meta-evaluation of the One Health Implication on Food Systems of Agrochemical Use -- Chapter 15. Food Quality and Agrochemical Use: Integrated Monitoring, Assessment, and Management Policies -- Chapter 16. Plants and Soil Microbiota Health Implications of Agrochemicals: Potential Alternatives for the Safe Propagation of Food Crops -- Chapter 17. A global perspective of synthetic agrochemicals in local farmers' markets of fruits and vegetables -- Chapter 18. Factors Influencing Agrochemical Use, Practices, and Knowledge Systems: Case Study of Rice farmers in the Cauvery Delta Zone of Tamil Nadu, India -- Part III: Agrochemicals and Environmental Justice: Dynamics, Remediation, and Sustainable Alternatives -- Chapter 19. Sustainable approaches for the remediation of agrochemicals in the environment -- Chapter 20. Plant-based Agrobiodiversity Solutions to Reduce Agrochemical Use -- Chapter 21. Prospects of Insect Farming for Food Security, Environmental Sustainability and as an Alternative to Agrochemical Use -- Chapter 22. Implications of Agrochemical Application on Soil Fauna and Ecosystem and their Sustainable Alternatives -- Chapter 23. Sustainable Agricultural Pest Control Strategies to Boost Food and Socioecological Security: The Allelopathic Strategy -- Chapter 24. Impacts of Agrochemicals on Fish Composition in Natural Waters: A Sustainable Management Approach -- Chapter 25. Sustainable Alternatives to Agrochemicals and their Socio-Economic and Ecological Values -- Chapter 26. Global Environmental Sustainability and Agrochemical Use -- Chapter 27. Impacts of Chemical Use in Agricultural Practices: Perspectives of Soil Microorganism and Vegetation -- Chapter 28. Eco-farming for Sustainability: Defending Our Way of Life Against Agrochemicals.

Sommario/riassunto

This book focuses on the United Nations SDG 3, SDG 12, and SDG 15. The book covers the full range of issues associated with agrochemical use from a One Health standpoint to promote a cleaner and safer alternative that leaves little to no negative legacy on Earth's natural, social, and economic systems. The main focus of the book is to address the biodiversity and human health, food security, and socio-environmental implications of agrochemical use in food production. It deals with the need to move away from the use of harmful chemicals in agriculture. The threat to key aspects of One Health will be used as evidence in support of the need to transition to safer and cleaner food production systems as well as the social, economic, health, and environmental viability of sustainable alternatives. One Health is the innovative convergence approach that encourages collaborative, cross-sectoral, and transdisciplinary methods to monitor, assess, report, and implement shared human health, biodiversity, and environmental challenges and goals such as agrochemical use. Conventional agrochemicals are chemicals used to protect plants, improve crop yield and manage agricultural fields but also have a negative legacy on Earth's systems. This book is of interest and useful to agricultural trainees and trainers, soil, food and agricultural institutes, food and soil systems specialists, biodiversity and environmental managers, activists, practitioners, and students. It is also a useful read for conservationists and industries interested in promoting organic agriculture for a sustainable community, regional and global development.
