

## Editors



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**Dr. Susmita Jha** did her bachelors in agriculture from shahts Allahabad she is one of merit holder in her B.Sc she also cleared ICAR-PG examination in plant sciences ,did her PG and PhD from UBKVV coochbehar in plant pathology during she masters and doctoral she specialized in Potato and Rice pathology specially in respect to rice blast and phytophthora she also qualified ICAR-NET she also participated in many national and international conferences and seminar and bagged best oral and poster awards she published many research and popular articles in many reputed international journals and magazines.



**Dr. Sulochna** is presently working as Assistant Professor-cum-Junior Scientist in the Department of Agronomy at Agriculture College Garhwa, Birsa agricultural University (BAU), Jharkhand. She has completed her undergraduate from Bihar Agriculture College, Sabour, Bhagalpur, Bihar (2008), her postgraduation from the Department of Agronomy, Ranchi Agriculture College, BAU, Jharkhand (2018) and her Ph. D. from Department of Agronomy, Ranchi Agriculture College, BAU, Jharkhand (2023). She worked as Senior Research Fellow, in Network Project on Organic Farming, Department of Agronomy, BAR, Ranchi. She wrote many books, book chapters, review articles, presented several research papers at national and international level and attended various National Seminar/Symposia



**Dr. Jay Nath Patel** is currently working as an Assistant Professor at Abhilashi University, Chail Chowk, Mandi, Himachal Pradesh. With great distinctions and an impressive academic records, he has completed his B.Sc. (Ag.) from Tilak Dhari P.G. College, Jaunpur, U.P., M.Sc. (Ag.) Agronomy from Acharya Narendra Deva University of Agriculture and Technology, Ayodhya, U.P. and Ph.D. Agronomy from Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, U.P. He has also qualified ICAR- NET. He has published many research papers, review papers in different peer-reviewed national and international journals, articles and popular articles in various magazines and many books and book chapters in different books.



**Dr. Narinder Panotra** (Ph. D) an Associate Professor at the Institute of Biotechnology, SKUAST-Jammu, has made significant contributions to the field of organic agriculture management during his 16-year career in teaching, research, and extension. He has worked extensively across the entire value chain of organic agriculture, organizing capacity building programs and facilitating the establishment of the OFRC, Chatha. As an academician, Dr. Panotra has authored 10 books, including a textbook, and published more than 100 research and review papers in national and international journals. He has visited 4 countries and has been associated with 26 externally funded projects by agencies such as ICAR, DST, DBT, and NABARD, while also working on 27 institutional research projects as a PI/Co-PI.

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## PREFACE

Agriculture, the foundation of human civilization, has been the backbone of our existence since time immemorial. As we navigate through the challenges of the 21st century, it is crucial to understand and adapt to the ever-evolving landscape of agricultural science. This book, "**Current Trends in Agricultural Science**," aims to provide a comprehensive overview of the latest advancements, innovations, and research in the field of agriculture. In recent years, the agricultural sector has witnessed a significant transformation driven by technological advancements, climate change, and the growing demand for sustainable food production. This book serves as a timely resource for researchers, students, policymakers, and practitioners who seek to stay abreast of the current trends shaping the future of agriculture.

The chapters in this book cover a wide range of topics, from precision agriculture and biotechnology to sustainable farming practices and agri-tech innovations. We delve into the application of cutting-edge technologies such as artificial intelligence, remote sensing, and big data analytics in optimizing crop yields and resource management. Additionally, we explore the challenges posed by climate change and discuss adaptive strategies to build resilient agricultural systems. One of the key focuses of this book is the importance of sustainable agriculture. We examine eco-friendly approaches to pest management, soil health, and water conservation. The book also highlights the growing trend of organic farming and agroecology, emphasizing the need to balance productivity with environmental stewardship.

Furthermore, we address the socio-economic aspects of agriculture, including agribusiness, supply chain management, and the role of smallholder farmers in the global food system. The book also discusses the latest policy developments and government initiatives aimed at supporting the agricultural sector and ensuring food security. As we look towards the future, it is clear that agriculture will continue to play a crucial role in meeting the world's food demands while preserving our planet's resources. This book serves as a valuable resource for anyone interested in understanding the current state of agricultural science and its potential to shape a sustainable and prosperous future for all.

We hope that "Current Trends in Agricultural Science" will inspire and inform readers, fostering a greater appreciation for the complex and dynamic nature of agriculture in the modern world..

**Happy reading and happy gardening!**

**Editors.....**

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