

INNOVATIONS IN MODERN HORTICULTURE

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Preface

Horticulture has emerged as one of the most dynamic and rapidly advancing fields within agricultural sciences. With increasing global demand for nutritious food, improved crop quality, sustainable production systems, and efficient resource management, modern horticulture is undergoing significant transformations driven by scientific innovations and technological advancements. The integration of advanced cultivation practices, biotechnology, precision agriculture, protected cultivation, and post-harvest management techniques is reshaping the way horticultural crops are produced, processed, and marketed.

The book *"Innovations in Modern Horticulture"* aims to present recent developments, emerging technologies, and innovative practices that are revolutionizing horticultural science. It highlights the role of modern tools such as tissue culture, genetic improvement, smart irrigation systems, vertical farming, protected cultivation, and digital agriculture in enhancing productivity, sustainability, and profitability of horticultural crops. The chapters included in this book also discuss climate-resilient horticulture, sustainable nutrient management, pest and disease management strategies, and value addition in horticultural produce.

This book is designed to serve as a comprehensive resource for students, researchers, academicians, horticulturists, and professionals engaged in the horticulture sector. The contributors have made sincere efforts to present updated information, practical insights, and scientific perspectives that will support learning, research, and field application.

We hope that this book will contribute to strengthening knowledge in modern horticultural innovations and inspire further research and technological adoption for sustainable horticultural development.

Dr. Tejraj Singh Hada
Dr. Mohammad Faisal
Dr. Richa Pyasi
Dr. Bharti Gautam

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