

CONTENTS

<i>Contributors</i>	<i>xvii</i>
<i>Abbreviations</i>	<i>xix</i>
<i>Preface</i>	<i>xxv</i>

Part I: Role of Nanotechnology in Agricultural Engineering 1

- 1. Role of Nanotechnology: Emerging Path From Soil to Fork..... 3**
Lohith Kumar Dasarahalli-Huligowda, Gajanan Gundewadi, and
Vijay S. Rakesh Reddy
- 2. Scope and Applications of Nanotechnology in Horticulture 33**
Vijay S. Rakesh Reddy, Gajanan Gundewadi, and
Lohith Kumar Dasarahalli-Huligowda
- 3. Role of Nanomaterials in Plant Growth and Nutrition 79**
Brijesh Patil Muder Pakeerappa, Harshita Singh, and
Harshvardhan Gowda Venkatachala

Part II: Role of Nanotechnology in Food Products, Nutraceuticals, and Therapeutics..... 95

- 4. Nanoencapsulation Methods in Iron Fortification of
Dairy Food Matrices 97**
Amrita Poonia
- 5. Nanoparticles and Nano-Formulations for Food Applications..... 117**
Nainsi Saxena, S. S. Shirkole, Sahely Saha, and B. Manjula
- 6. Nanotechnology in Processing and Preservation of
Meat and Meat Products 141**
Soumitra Banerjee, H. B. Muralidhara, and Preetam Sarkar
- 7. Horizons of Nanotechnology in Food Science 159**
B. Manjula
- 8. Role of Nanotechnology in Selective Targeting of Cancer..... 175**
Rahul Saini

Part III: Role of Nanotechnology in Bioprocessing	189
9. Nanotechnology for Biofuel Production.....	191
Nikhil Kumar and Pawan Kumar	
10. Fabrication and Applications of Enzyme Nanoparticles.....	203
Pawan Kumar and Nikhil Kumar	
11. Technology of Carbon Nanotubes for Waste Water Treatment.....	215
Bharti Verma and Chandrajit Balomajumder	
12. Nanoparticles Derived From Lignocellulosic Biomass.....	245
Ajay Kumar Chauhan	
Index.....	263