

Contents

<i>Professor Sant Saran Bhojwani</i>	v
<i>Preface</i>	xi
1. <i>In Vitro</i> Androgenesis: Events Preceding Its Cytological Manifestation <i>Shashi B. Babbar, Nishi Kumari and Jitendera K. Mishra</i>	1
2. Doubled Haploids: A Powerful Biotechnological Tool for Genetic Enhancement in Oilseed Brassicas <i>Deepak Prem, Kadambari Gupta and Abha Agnihotri</i>	18
3. Double Fertilisation <i>in vitro</i> and Transgene Technology <i>Erhard Kranz, Yoichiro Hoshino, Takashi Okamoto and Stefan Scholten</i>	31
4. Polymorphism of Sexual and Somatic Embryos as Manifestation of Their Developmental Parallelism Under Natural Conditions and in Tissue Culture <i>Tatyana B. Batygina</i>	43
5. Molecular Biology and Genetic Engineering of Polyamines in Plants <i>M.V. Rajam, R. Kumria and S. Singh</i>	60
6. Biotechnological Approaches Towards Improvement of Medicinal Plants <i>Alka Narula, Sanjeev Kumar, K.C. Bansal and P.S. Srivastava</i>	78
7. Production of Phytochemicals in Plant Cell Bioreactors <i>Saurabh Chattopadhyay, A.K. Srivastava and V.S. Bisaria</i>	117
8. Development of Biotechnology for <i>Commiphora wightii</i> ; A Potent Source of Natural Hypolipidemic and Hypocholesterolemic Drug <i>Sandeep Kumar, S.S. Suri, K.C. Sonie and K.G. Ramawat</i>	129
9. Biotechnology in Quality Improvement of Oilseed Brassicas <i>Abha Agnihotri, Deepak Prem and Kadambari Gupta</i>	144
10. Role of Biotechnology for Incorporating White Rust Resistance in Brassica Species <i>Kadambari Gupta, Deepak Prem and Abha Agnihotri</i>	156
11. Current Trends in Forest Tree Biotechnology <i>E.M. Muralidharan and Jose Kallarackal</i>	169
12. Cloning Forestry Species <i>Vibha Dhawan and Sanjay Saxena</i>	183

13. Micropropagation of Woody Plants <i>J.S. Rathore, Vinod Rathore, N.S. Shekhawat, R.P. Singh, G. Liler, Mahendra Phulwaria and H.R. Dagla</i>	195
14. Biotechnology in Mulberry (<i>Morus</i> spp.) Crop Improvement: Research Directions and Priorities <i>S.B. Dandin and V. Girish Naik</i>	206
15. Development of High Efficiency Micropropagation Protocol of an Adult Tree— <i>Wrightia tomentosa</i> <i>S.D. Purohit, P. Joshi, K. Tak and R. Nagori</i>	217
16. <i>In Vitro</i> Regeneration and Improvement in Tropical Fruit Trees: An Assessment <i>Madhulika Singh, Uma Jaiswal and V.S. Jaiswal</i>	228
17. Tissue Culture of Cashewnut <i>Sumita Jha and Sudripta Das</i>	244
18. Changing Scenarios in Indian Horticulture <i>Sanjay Saxena and Vibha Dhawan</i>	261
19. Cryopreservation: A Potential Tool for Long-term Conservation of Medicinal Plants <i>Sonali Dixit, Sangeeta Ahuja, Alka Narula and P.S. Srivastava</i>	278
20. Molecular Mapping and Marker Assisted Selection of Traits for Crop Improvement <i>Anushri Varshney, T. Mohapatra and R.P. Sharma</i>	289
21. Studies on Male Meiosis in Cultivated and Wild <i>Vigna</i> Species <i>S. Rama Rao and S.N. Raina</i>	331
22. Transgenic Crops for Abiotic Stress Tolerance <i>Deepti Tayal, P.S. Srivastava and K.C. Bansal</i>	346
23. Cell Differentiation in Shoot Meristem: A Molecular Perspective <i>Jitendra P. Khurana, Lokeshpati Tripathi, Dibyendu Kumar, Jitendra K. Thakur and Meghna R. Malik</i>	366