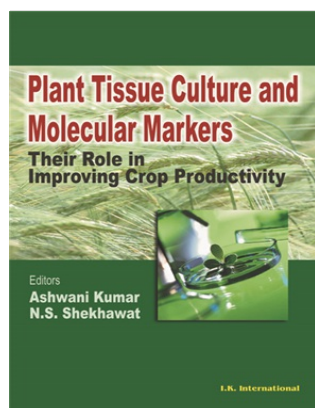


Plant Tissue Culture and Molecular Markers, 1/e

Ashwani Kumar & N.S. Shekhawat



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About the Book

Plant tissue culture techniques help in understanding basic life processes and their proper understanding is essential for improving crop productivity. Besides, recently molecular biology has assumed great importance with respect to plant biotechnology. The present book amalgamates all three aspects into one, practical applications of various techniques being the need of the hour. It discusses micropropagation studies on several crop plants, molecular basis of understanding various life processes including molecular basis of somatic embryogenesis and other physiological and biochemical processes having significant biotechnological applications. It also includes in vitro studies of some important plants like Aloe vera, Simmondsia chinensis, Anacyclus pyrethrum and Crataeva nurvala, Arachis hypogaea L., Phoenix dactylifera, Dendrocalamus asper, Asparagus adscendens Roxb., natural products of plant origin with their therapeutic potential and biotechnological production, genome analysis of crop plants with future applications in biotechnology etc.

Salient Features

Salient Features:

- ▶ Covers the topics of plant cell and tissue culture techniques to biochemical, molecular genetic aspects and their usage for improving plant productivity.
- ▶ The text is well supported with tables, diagrams, and pictures.
- ▶ Each chapter has an abstract and keywords, and provides a conclusion at the end.
- ▶ Chapters are contributed by 129 eminent scientists and academicians.

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About the Author

Ashwani Kumar :- Ashwani Kumar, Professor, Department of Botany, University of Rajasthan, Jaipur, has earned gold medal in M.Sc. and obtained Ph.D. from Rajasthan University. He also has the distinction of being an Alexander Von Humboldt Fellow (Germany). He was the Honorary Director at the School of Life Sciences, University of Rajasthan. The author's repertoire of published works spreads across 150 research articles in various national and international journals. With an experience of over three decades in his field of research, namely, tissue culture and biochemistry, the author has been at the helm of various major projects carried out by USDA-ICAR, U.G.C., M.N.E.S., C.S.I.R and DBT. He has long association with Professor Dr. Karl-Hermann Neumann and subsequently with Professor Dr. Sven Schubert at Institute Für Pflanzenernährung, Justus Liebig Universität, Giessen, Germany, as visiting Humboldt Fellow and visiting Professor at Toyama Medical and Pharmaceutical University, Toyama, Japan. The author is currently engaged in research on salinity tolerance at molecular level in cereals and crops. Recently he has been awarded the prestigious V. Puri Medal 2008.

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