

Plant Biotechnology

Volume 2: Transgenics, Stress Management, and Biosafety Issues

This volume is the second of the new two-volume Plant Biotechnology set. This volume covers many recent advances in the development of transgenic plants that have revolutionized our concepts of sustainable food production, cost-effective alternative energy strategies, microbial biofertilizers and biopesticides, and disease diagnostics through plant biotechnology. With the advancements in plant biotechnology, many of the customary approaches are out of date, and an understanding of new updated approaches is needed. This volume presents information related to recent methods of genetic transformation, gene silencing, development of transgenic crops, biosafety issues, microbial biotechnology, oxidative stress, and plant disease diagnostics and management.

Key features:

- Provides an in-depth knowledge of various techniques of genetic transformation of plants, chloroplast, and fungus
- Describes advances in gene silencing in plants
- Discusses transgenic plants for various traits and their application in crop improvement
- Looks at genetically modified foods and biodiesel production
- Describes biotechnological approaches in horticultural and ornamental plants
- Explores the biosafety aspect associated with transgenic crops
- Considers the role of microbes in sustainable agriculture

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