

## **About the Book**

*Biotechnology is a recently developed domain of research involving new techniques that have arisen out of interdisciplinary interaction and comprises genetic engineering, immobilization of biocatalytic systems, cultivation of animal, plant and microbial cells, development of used cell techniques and bioengineering processes and systems.*

*The chapters cover practically all aspects of plant biotechnology, which is now considered the solution of acute food crises by growing of crops needing less water, disease resistance crops, high yielding varieties, combining the traits of two more plants in a single plant and genetic engineering. Biotechnology provides the answers to many problems, which the world is facing today, and would continue to do so tomorrow. The explore many vistas of biotechnology, which will be useful for scientists and students to understand the latest techniques and processes of biotechnology research.*

### **Contents:**

1. *Introduction*
2. *Laboratory organization*
3. *Aseptic manipulation, nutrition and culture techniques*
4. *Micropropagation*
5. *Somatic embryogenesis*
6. *Protoplast isolation, culture and fusion*
7. *Haploid plant production: anther, pollen and embryo culture*
8. *Somaclonal variation*
9. *Genetic engineering*
10. *Applications of plant biotechnology*
11. *Proteomics*
12. *Bioinformatics*