Plant genetic engineering has revolutionized our ability to produce genetically improved plant varieties. A large portion of our major crops have undergone genetic improvement through the use of recombinant DNA techniques in which microorganisms play a vital role. The cross-kingdom transfer of genes to incorporate novel phenotypes into plants has utilized microbes at every step—from cloning and characterization of a gene to the production of a genetically engineered plant. This book covers the important aspects of Microbial Biotechnology in Agriculture and Aquaculture with the aim to improve crop yield.

Contents:
- Microbes and their Contributions to Plant Biotechnology: S.C. Minocha and A.F. Page
- Genetically Modified Plants: Applications and Issues: Ioannis S. Arvanitoyannis
- Rhizobial Production Technology: Neung Teamroong and Nantakorn Boonkerd
- Phosphorus Solubilizing Microorganisms and their Role in Plant Growth Promotion: Olga Mikánova and Jaromír Kubát
- Biotechnology of Biofertilizers for Rice Crop: S. Kannaiyan and K. Kumar
- Physiological and Genetic Effects of Bacterial ACC Deaminase on Plants: S. Saleh-Lakha et al.
- Rhizobial Strain Improvement: Genetic Analysis and Modification: Marta Laranjo and Solange Oliveira
- Influence of Microorganisms/ Microbial Product on Water and Sediment Quality in Aquaculture Ponds: Claude E. Boyd and Orawan Silapajarn
- Linking Ecotechnology and Biotechnology in Aquaculture: J. Oláh et al.
- Microbial Degradation of Pesticides: Atrazine as a Case Study: Moshe Herzberg et al.
- Microbiological Technology for Extraction of Jute and Allied Fibres: M.K. Basak
- Microbial Bioconversions of Agri-Horticultural Produces into Alcoholic Beverages -Global Scenario: Nduka Okafor
- Aquaculture Biotechnology for Enhanced Fish Production for Human Consumption: A. Exadactylos and Ioannis S. Arvanitoyannis
- Microbial Processing of Agricultural Residues for Production of Food, Feed and Food-Additives: R.C. Roy et al.