BOOK REVIEW

Title : Mycology and Microbiology

Authors : C. Manoharachary, K.V.B.R.Tilak, K.V. Mallaiah and I.K.Kunwar
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It is an excellent text book on 'Mycology and Microbiology' for UG and PG students authored by C. Manoharachary, K. V. B. R. Tilak and I. K. Kunwar from Department of Botany, Osmania University, Hyderabad, Telangana and K. V. Mallaiah of Department of Botany, Nagarjuna University, Guntur, Andhra Pradesh. In this book the authors have assimilated their vast experience and expertise of working on the taxonomy, ecology and applied aspects of microbes over a period of time. Through this book the authors have attempted to make the readers understand the biology and biotechnology of microbes in a simpler way. In all, the subject matter of the book has been discussed in 40 different chapters distributed under three different parts. Under Part A, chapters pertaining to Mycology are discussed, followed by Part B dealing with current topics of importance in fungi while Part C deals exclusively with Microbiology. The chapters under the major heads are systematically planned giving the detailed insight into the basic aspects of microorganisms, their classification, types, diversity and important genera explaining in a simple manner the complexity of microorganisms with respect to their phylogeny, origin and evolution and their application in the Biotechnology. In the Mycology section of the book, Chapters 1- 3 discusses the historical developments and general characters of fungi. In Chapter 4 the taxonomy of fungi has been taken care off taking into account latest changes enacted in the International Code of Nomenclature. Under Chapter 5-11, all the major groups of Fungi along with their general characters and important representative fungal genera are dealt with. The chapters12-28 covers the current topics of importance in fungi, particularly with respect to phylogeny, evolution, biodiversity, fungal ecology, conservation, trends in sexual reproduction, fungal biotechnology, aeromycology, mycorrhiza, endophytic fungi, mushroom cultivation, entomogenous fungi, mycotoxigenic fungi, keratinophilic fungi, and fungi growing on miscellaneous substrates, etc. In the book independent chapters are devoted to plant diseases caused by fungal pathogens and their control and mycological methods concerning collection and isolation of fungi. Under Section-C besides historical developments in microbiology, independent chapters on Bacteria, Viruses and other microbes are given. Along with information about the diseases caused by these microbes, their diversity and conservation and some aspects of applied microbiology are also discussed. Chapter-32 of the book deals with microscopy wherein, an insight into the various types of differential stains used in microscopy has also been given. An independent chapter is devoted to the molecular methods used for analysis of microbial communities.

At the end of the book pattern of the types of questions which are generally asked in various examinations and the glossary to the technical terms has been provided, which adds to the quality of the textbook. This attempt of the authors is praiseworthy as it will go a long way to make the students understand the recent trends in the biology and biotechnology of fungi and microbes. I congratulate the authors for giving yet another excellent textbook covering the twin disciplines of Mycology and Microbiology.

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