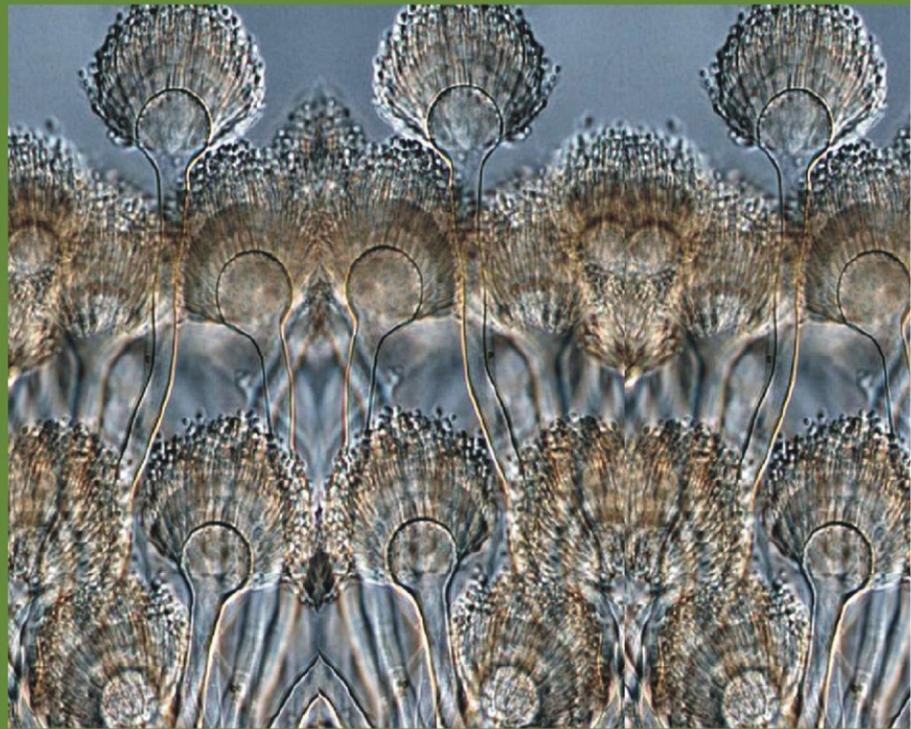
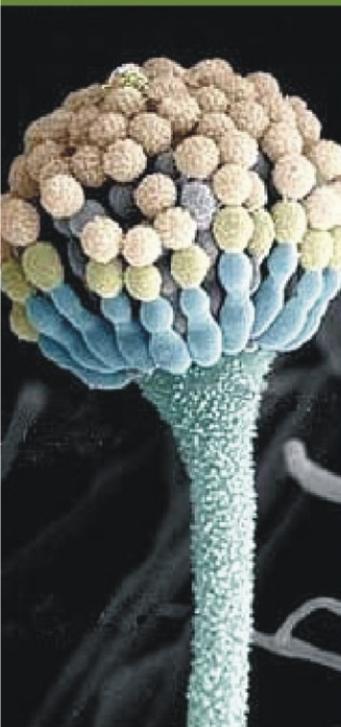


Mycotoxins Problem and its Management



S.M. Reddy
S. Girisham
V. Krishna Reddy
M. Surekha

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S.M. Reddy
S. Girisham
V. Krishna Reddy
M. Surekha

Department of Botany and Microbiology
Kakatiya University
Warangal-506 009



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PREFACE

Mycotoxins, secondary metabolites of storage moulds, have been receiving increasing attention in view of their undisputed role in public health. Many books appeared, conferences in different parts of the globe are being conducted which clearly indicate direct relation between the incidence of mycotoxigenic fungi, degree of mycotoxin contamination and their prevalence revealed their relation to some of the human ailments. Out of several mycotoxins, aflatoxins, ochratoxins A and fumonisins are posing serious health hazards specially in Asian countries. In spite of intensive and extensive studies related to mycotoxins the problems becoming intricate and intriguing and decisive conclusions could not be drawn and clear cut solutions are provided.

There is no way of establishing the incidence of human mycotoxicoses and their degree of incidence. Further, there are no epidemiological studies which enable us to draw decisive conclusions but we are forced to draw conclusions only on circumstantial evidences. It is now visualized that the natural incidence of mycotoxins contamination and health problems are not to the same degree to that of *in vitro* studies. This has been attributed to the complexity of environment in which we are living. Thus what we conclude based on laboratory studies may not hold true to that happening in nature. One has to be cautious in deriving conclusions based on *in vitro* studies.

In order to high light the possible eventualities and in the context of Indian conditions, it was felt the need of assessing and prepare a comprehensive account so that person interested may get clear understanding of the problem and probe further in this direction to get better insight.

Present attempt is made to assess developments in the subject and project the future problems in the light of changing conditions with special reference to India. This book is divided into two parts. First part deals with general aspects of mycotoxins covering areas of natural incidence, taxonomy of mycotoxigenic fungi, analytical techniques, and mechanism of mycotoxins, toxicity epidemiology and management of mycotoxins. The second part deals with individual mycotoxins. The detailed account of producing organisms, detection, biological activity and management practices specific to that of mycotoxins are discussed in individual chapters. An attempt has been made to discuss mycotoxins problem with reference to Indian conditions. In view of

voluminous literature only comparatively recent and relevant literature is quoted and may be some important works might have been omitted.

The task of this magnitude cannot be accomplished unless and until help and encouragement received from different corners. Our heartfelt thanks are to our late revered teacher Prof. K.S. Bilgrami who introduced me to this area of research and motivated for further research. Our thanks are due to band of students who did stupendous work and struggled in the field which formed the basis for this book. We are also thankful to authors and publishers from which we have borrowed the material. Our profuse thanks are due to research scholars specially Dr. Supriya Sarkar. Mr. Ranjith Kumar R. and Shilpa, P. who toiled in the preparation of the manuscript. The grant received from Department of Science and Technology, New Delhi in the form of users programme is gratefully acknowledged.

Date:

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Authors

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