

## Book Review

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### **Fusarium: Paul E. Nelson Memorial Symposium**

APS Press, St. Paul Minnesota, USA, 2001, 392 p.

ISBN 0-89054-268-6. Price 59 USD

(The book is deposited in the library of the Society)

*Fusarium* has mostly been studied in the context of its ability to cause diseases of many economically important crop plants. Besides its considerable economic significance, *Fusarium* has become a valuable experimental pathogen for the study of genetic, molecular and biochemical aspects of plant-fungus associations.

This book includes either revised versions of papers presented at the P. E. Nelson Memorial Symposium held at Pennsylvania State University, State College, Pennsylvania, in November 1997 or additional contributions written for this book.

The preface of this book is dedicated to P. E. Nelson, to his research on the *Fusarium* genus and his achievements in this field of interest.

The contributions were summarized in 25 articles (chapters) in five sections and are supplemented with tables, black and white illustrations, photos and references.

The first section ("Taxonomy") contains three contributions. The very interesting chapter "Developments in the taxonomy of *Fusarium* species based on secondary metabolites" is supplemented with a table of *Fusarium* metabolites and a survey of analytical techniques for their detection. The author emphasises the use of secondary metabolite profiles in connection with morphological, physiological and genetical characters as a powerful tool for classification of *Fusarium* species. The next chapters deal with the study of perithecial species of *Fusarium* and anamorph generic concepts of *Fusarium*.

The second section ("Genetics") includes 5 chapters, which present results of research on genetics of *Fusarium* toxins, evolution of host specificity in *Fusarium oxysporum* and vegetative compatibility group diversity in *Fusarium*.

The third section ("Ecology") contains four chapters. These contributions include the results of studies on *Fusarium* species from the view of their biogeography and influence of various conditions.

The section "Pathology" with nine contributions is the most voluminous. The first chapter ("Molecular assays as aids in the detection, diagnosis and quantification of *Fusarium* species in plants") is crucial; it deals with modern methods of study of the complex host-fungus. Immunoassay and DNA-based assays developed toward *Fusarium* species are valuable tools in epidemiological studies, providing a rapid reliable means of detecting and quantifying pathogens in host tissues throughout the growing season. The other contributions of this section deal with *Fusarium* spp. as very significant pathogens of a wide range of important crop plants.

The last part ("Mycotoxicology") covers four contributions. They confirm the significance of mycotoxin production by agriculturally important *Fusarium* spp. Developments in mycotoxicology have progressed rapidly over the last four decades.

This book gives new information and strengthens the knowledge of specialists in this field of study and it will in particular initiate further research concerning the *Fusarium* genus.

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