

Book review

D. H. GRIFFIN: FUNGAL PHYSIOLOGY

2nd Edition, Wiley-Liss, New York 1994, ix + 458 pp

Twelve years after the first edition, the Griffins book on fungal physiology appears in a completely rewritten, modernized form. The author had to cope with the great progress in experimental methods and achievements of the last decade without writing a book on fungal biochemistry and molecular genetics. In my opinion, he has mastered the task. The book is written for advanced students and replaces neither introductory texts nor specialized treatises. A background knowledge in mycology and also in biochemistry and physics is assumed but the text is clear and logical so that consulting of further books will seldom be necessary. The author omits generalities and stresses the aspects of physiology peculiar to fungi. The experimental results are used to derive current physiological concepts and the text never becomes a tangle of hardly generalizable data. Typical is an experimental approach, explaining the basic methods and illustrating the experiments that have led to important conclusions. The book is written by one person and that gave it a uniform style and terminology and well-balanced contents of individual chapters.

"Fungal Physiology" consists of fourteen chapters. After an introduction to the world of fungi the author describes the most important chemical components of fungal cells and the "molecular architecture", in fact the cytology of fungi. Four chapters deal with various aspects of individual cells and whole thalli, including acquisition, digestion and transport of nutrients and physical factors influencing the growth. Following parts give account on the primary and secondary metabolism of fungal mycelia and its regulation. Sexual reproduction including meiosis and physiology of spore development, dormancy and germination are subjects of three chapters. The last chapter covers antifungal antibiotic and synthetic fungicides. An ecologically oriented mycologist may miss a chapter on physiological aspects of fungal ecology, nevertheless, many facts pertinent to this area can be found dispersed throughout the book.

The "Fungal Physiology" fills an important gap in available texts and is an excellent source of knowledge not only to advanced students but also to anybody who is engaged in experimental mycology.

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