

Prell, H.H., Day, P. (ed.): **Plant-Fungal Pathogen Interaction. A Classical and Molecular View.** - Springer-Verlag, Berlin - Heidelberg - New York 2000. 214 pp. DM 129.00. ISBN 3-540-66727-X.

Research on plant-pathogen interactions belongs to the most rapidly developing and moving fields in plant sciences. Extensive study of infection process on one hand, and plant responses to pathogens in different experimental systems on the other, resulted in the introduction of some new strategies in disease control.

This English translation of a German book (Prell, H.H.: *Interaktionen von Pflanzen und phytopathogenen Pilzen: Parasitierung, und Resistenz, Genetik und molekulare Phytopathologie.* - G. Fischer, Jena - Stuttgart 1996) represents a revised and updated version of the first German edition.

The book offers insight into the state of present knowledge covering all events of fungal infection, starting with the first step in the interaction between plant and pathogen: recognition, parasitization strategies employed by the phytopathogenic fungi, the action of plant defence mechanisms including the effect of phytotoxines. Special attention is paid to host resistance. The basic Flor's "gene-for-gene" hypothesis is given as well as explanation of elicitor-receptor interaction, role of

ion channels, and suppressor-receptor model. Following chapters are devoted to plant genes encoding receptors for specific pathogen elicitors, co-evolution of resistant host plants and their specific virulent pathogens in agriculture, preservation of *Avr* genes in pathogen population and their possible functions. Explained is also the nature of plant tolerance and induced resistance, which could bring untraditional approach to crop protection. Discussed is also evolution of plant-pathogen interactions and its influence on breeding of disease resistant crops in agriculture.

The book is completed with glossary of useful terms utilized in biology and plant pathology. At the end of each chapter, there are listed both review papers and "relevant papers" connected to more recent and particularly interesting results cited in the text.

This book can be strongly recommended to scientists and graduate students in plant pathology, biology and biochemistry, genetics and molecular genetics as well as to practitioners in plant protection and plant breeding.

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