Keen, N.T., Mayama, S., Leach, J.E., Tsuyumu, S. (ed.): **Delivery and Perception of Pathogen Signals in Plants.** - APS Press, St. Paul 2001. xii + 236 pp. USD 59.00. ISBN 0-89054-259-7

The book contains papers presented at the 8th Japan-US seminar, held June 19-23, 1999 at Marina del Rey, California, USA, dealing with a range of topics concerned with plant-pathogen communication.

It is composed of 26 chapters incorporating latest in the respective fields. The book opens with three keynote papers. In the first chapter "Perception of Pathogen Signals to Initiate Active Defense", Prof. T. Tani gives an overview about plant perception of pathogen signals. Further, Prof. L. Sequeira presents a summation of events that have passed over the last 40 years in the study of bacterial plant pathogens ("Delivery of Pathogen Signals: Historical Approach"). Finally, Prof. H. Kunoh summarizes the work of many laboratories dealing with "Adhesion of Fungal Spores and Effects on Plant Cells".

The next chapters cover a wide variety of topics ranging from discussion of plant disease resistance genes against nematodes and insects to fungal host selective toxins: Chapter 4 - Bacterial Avr Proteins: Secreted Agents of Parasitism and Elicitors of Plant Defense; Chapter 5 - Rice Receptors for Chitin and Glucan Elicitors; Chapter 6 - Understanding Pectate Lyase C at the Atomic Level; Chapter 7 - A New Type of Host-Selective Toxin, a Protein from *Alternaria brassicicola*; Chapter 8 - Chlorosis-Inducing Phytotoxins: Virulence Factors Produced by *Pseudomonas syringae*; Chapter 9 - Molecular Genetics of Host-Specific Toxin Biosynthesis in *Alternaria alternata*; Chapter 10 - Victorin, Apoptosis and the Mitochondrion; Chapter 11 - Suppressors of Defense-Supprescins and Plant Receptor Molecules; Chapter 12 - Signaling Pathways for TMV and Wound-Induced Resistence in Tobacco Plants; Chapter 13 - Genetic Relationships Specifying Bacterial Disease Resistance in *Xanthomonas*-Pepper Interactions; Chapter 14 - Signaling in Rice Disease Resistance; Chapter 15 - Mi-1, a Dual Function Disease Resistance Gene in Tomato; Chapter 16 - Pathogen Recognition and Signal Transduction Mediated by the Product of the Pto Disease Resistance Gene; Chapter 17 - Regulation of Nuclear Gene Expression in Relation to Signal Molecules; Chapter 18 - Molecular Interactions Between the Rice Blast Resistance Gene Pi-ta and its Corresponding Avirulence Gene; Chapter 19 - The Oxidative Burst in Plants: Mechanism and Function in Induced Resistance; Chapter 20 - Perception of the Syringolide Elicitors by Soybean Cells; Chapter 21 - Citrus Responses to a Pathogenicity Factor: The Brown Spot Disease Caused by the Rough Lemon Pathotype of *Alternaria alternata*; Chapter 22 - Effectors of Bacterial Virulence and Mediators of Disease Resistance Responses: The Two Faces of Avr; Chapter 23 - Apoptotic Response in Defense of Oats to Infections and Elicitors; Chapter 24 - Trafficking of Pathogenicity-related Gene Products from *Xanthomonas citri* into Plant Cell; Chapter 25 - Trafficking of Plant Defense Response Compounds; Chapter 26 - Biotechnology as an Approach to Improving Disease Resistance in Plants.

This book—representing a valuable source of up-to-date information on the mechanisms involved in plant-pathogen communication—is very useful for scientists and students interested in this field.

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