Webster, R.K., Shaner, G., Van Alfen, N.K. (ed.): **Annual Review of Phytopathology. Volume. 41. -** Annual Reviews, Palo Alto 2003. 724 pp. Price print & online: individual USD 70.00 (USA), 75.00 (elsewhere); institutional 198.00 (USA), 203.00 (elsewhere). ISBN 0-8243-1341-0.

The prefatory chapter "Perspectives on plant and soil nematology" is written by K.R. Barker. Two next chapters "James Gordon Horsfall: Nonconformist and founding father" and "Carl Freiherr von Tubeuf: Pioneer in biological control of plant diseases" are devoted to pioneer leaders in phytopathology. The review "Epidemiology and management of tomato spotted wilt in peanut" (A.K. Culbreath *et al.*) describes interdisciplinary investigations, which resulted in development of integrated management systems that make use of moderately resistant cultivars and chemical and cultural practices, each of which helps to suppress spotted wilt epidemics. A.O. Noueiry and P. Ahlquist in chapter "Brome mosaic virus RNA replication: Revealing the role of the host in RNA virus replication" discuss recent findings on the identification and characterization of host factors in BMV RNA replication. G.P. Munkvold in "Cultural and genetic approaches to managing mycotoxins in maize" deals with efforts to control infection or mycotoxin development through conventional breeding and genetic engineering, and the role of transgenic insect control in the prevention of mycotoxins in maize. D. Haas and C. Keel review "Regulation of antibiotic production in root-colonizing *Pseudomonas* spp. and relevance for biological control of plant disease". The article "The threat of plant pathogens as weapons against US crops" (L.V. Madden and M. Wheelis) addresses the vulnerability of U.S. crops to attack from biological weapons by reviewing the costs and impact of plant diseases on crops, pointing out the difficulty in preventing deliberate introduction of pathogens and discovering new disease outbreaks quickly, and discussing why a plant pathogen might be chosen as a biological weapon. Twelve sexual species of *Gibberella* of agricultural importance (destructive plant pathogens) were selected for the review "*Gibberella* from A (venaceae) to Z (eae)" (A.E. Desjardins) to represent phylogenetic, biological, and chemical diversity of the genus. The chapter "Evolution of wheat streak mosaic virus: Dynamics of population growth within plants may explain limited variation" was written by R. French and D.C. Stenger. The review "Molecular basis of *Pto*-mediated resistance to bacterial speck disease in tomato" (K.F. Pedley and G.B. Martin) with three coloured figures presents the model of *Pto*- and *Prf*-mediated defence responses and shows that gene-for-gene interaction might actually be "genes-for-genes" interactions involving multiple pathogen and plant proteins. D.P. Jasmer *et al.* compare host/parasite interactions between plant parasitic nematodes and animal parasitic nematodes, with an emphasis on mammalian hosts, and consider the similarities and differences in the context of progress on molecular dissection of these interactions in chapter "Parasitic nematode interactions with mammals and plants". In the chapter "Ecology of mycorrhizae: A conceptual framework for complex interactions among plants and fungi", M.F. Allen *et al.* present a description of the array of mechanisms whereby mycorrhizae influence plant growth and fungal persistence, an overview of the incredible number of taxon combinations that result in mycorrhizal symbioses, and examine how that diversity might be structured. The review "Advances in molecular-based diagnostics in meeting crop biosecurity and phytosanitary issues" (N.W. Schaad *et al.*) summarizes recent progress in the development of rapid real-time PCR protocols and evaluates their effectiveness in a proposed nationwide network of diagnostic laboratories that will facilitate rapid diagnostics and improved communication and is complemented with four colored figures. The readers of Biologia Plantarum will be also interested in the reviews "Of smuts, blasts, mildews, and blights: cAMP signaling in phytopathogenic fungi" (N. Lee *et al.*), "Quorum sensing in plant-pathogenic bacteria" (von S.B. Bodman *et al.*) "Pathogen self-defense: Mechanisms to counteract microbial antagonism" (B. Duffy *et al.*), "Luteovirus-aphid interactions" (S. Gray and F.E. Gildow), "Engineering plants for nematode resistance" (H.J. Atkinson *et al.*), and "Establishment of biotrophy by parasitic fungi and reprogramming of host cells for disease resistance" (P. Schulze-Lefert and R. Panstruga). Other reviews covered in this volume are: "Development of alternative strategies for management of soilborne pathogens currently controlled with methyl bromide", "Patterns of pesticide use in California and the implications for strategies for reduction of pesticides", "Innovations in teaching plant pathology", "The ecological significance of biofilm formation by plant-associated bacteria", "*Spiroplasma citri*, a plant pathogenic mollicute: Relationships with its two hosts, the plant and the leafhopper vector", "Ecology and epidemiology of *Benyviruses* and plasmodiophorid vectors", and "The potential of optical canopy measure-ment for targeted control of field crop diseases".

This book represents a valuable source of up to date information on diverse fields of phytopathology and mechanisms involved in plant-pathogen communication and is very useful for scientists and students interested in this field. The book is equipped with detailed "Subject index". In addition, the "Cumulative index of contributing authors" and "Cumulative index of chapter titles" (Volumes 32 - 41) are included.

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