

**Tjamos, E. C., Rowe, R. C., Heale, J. B., Fravel, D. R. (eds.). 2000. Advances in *Verticillium* Research and Disease Management. APS American Phytopathological Society Press, St. Paul, Minnesota, 357 pp. ISBN 0-89054-247-3.**

This book contains overviews and oral and poster presentations at the Seventh International *Verticillium* Symposium held during 6-10 October 1997 at Athens, Greece. Over 90 scientists from twenty countries presented data from their research and exchanged ideas and information on a broad range of topics: taxonomy, molecular biology, physiology, epidemiology and the management of *Verticillium* wilt diseases using biological, cultural and chemical means.

The book consists six parts and cover all important aspects pertinent to *Verticillium* genus that groups species causing vascular wilt diseases of many important crop plants such as potato, tomato, cotton, sweet pepper, strawberry as well as shrubs and trees.

Part 1 "Molecular biology of *Verticillium* spp." (p. 1-68) opens a paper by J. B. Heale (England) – "Diversification and speciation in *Verticillium* – an overview" significantly clarifying the taxonomy within this genus. Apart of two well known species *V. albo-atrum* and *V. dahliae* the author emphasizes recent recognition of *V. longisporum* attacking rapeseed (*Brassica napus*) in France, Poland, Southern Russia, Ukraine, Sweden and Germany. Seven other papers deal with use of molecular techniques such as RAPD, PCR and mtDNA gene probes in characterization of species and isolates of *Verticillium*.

Part 2 "Vegetative compatibility" (p. 69-121) starts with overview by T. Katan (Israel) – "Vegetative compatibility in populations of *Verticillium*" pointing out the importance of that phenomenon for studies of genetics and taxonomic VCG groups within *Verticillium* species. In nine other papers the genetic relatedness and genetic compatibility of several isolates of *V. dahliae* from various countries or various hosts are discussed.

Part 3 "Phenology, epidemiology and microsclerotia" (p. 122-143) contains six papers that concern methods of detection and quantifying the abundance of mycelium and microsclerotia as indices of *V. dahliae* presence in the soil.

Part 4 “Biochemistry, physiology, host-parasite interactions, and host resistance” (p. 144-226) opens an overview by R. M. Cooper (England) “*Verticillium* – host interaction: past achievements and future molecular prospects” providing interesting information on key events which determine the outcome of *Verticillium*-host interactions in relation to: pathogenicity, resistance and molecular analysis. The use of tomato and *Arabidopsis* as hosts in model systems with *Ve*-genes is emphasized. Other fifteen papers deal with physiological changes and pathogenicity of *Verticillium* diseases in various plants. Of special interest are papers showing prospects for controlling vascular diseases by genetic engineering.

Part 5 “Control: Biological” (p. 227-273) starts with review by E. C. Tjamos “Strategies and developing methods and applying techniques for the biological control of *Verticillium dahliae*”. Ten other papers prove effective use of antagonists *Talaromyces flavus*, *Trichoderma viridae*, *Bacillus* spp. and *Serratia plymuthica* in biological control of *V. dahliae*, *V. albo-atrum* and *V. longisporum* on hop, potato and oilseed rape.

Part 6 “Control: Cultural practices, chemical and the diseases” (p. 274-357) opens review by G. Lazarovits et al. (Canada) “Control of *Verticillium dahliae* with soil amendments: efficacy and mode of action” that contains many convincing information that by proper use of nitrogenous amendments, green manures, cellulosic amendments and composts it is possible to control wilt diseases. Seventeen other papers deal with specific preventive or control measures such as use of fumigants, soil solarization or organic material and plastic mulching.

I strongly recommend this book to all plant pathologists as it may serve as a model how to approach broadly and deeply the problems of plant diseases.

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