Agrawal, A.A., Tuzun, S., Bent, E.: **Induced Plant Defenses Against Pathogens and Herbivores**. APS Press, St. Paul, Minnesota 1999. 390 pp. USD 55.00. ISBN 0-89054-242-2.

For the past several decades entomologists and plant pathologists have investigated induced responses of plants to herbivores and to diseases independently. Recently, intense interest in the transduction signals that plants employ to mediate induced responses has made it clear that these two kinds of plant reactions share much in common. This book is aimed to allow these two disciplines to converse and to learn from their similarities and differences.

The content of this book is divided to three main parts. Part I deals with biochemistry and mechanisms of plant defenses with a special attention on signal pathways involved in induced responses to both herbivores and pathogens including the role of salicylic acid, jasmonic acid, ethylene and others. In this part, detail information about plant defense responses to pathogens such as hypersensitive reaction, production of active oxygen species, phytoalexin accumulation, cell wall modifications, accumulation of PR (pathogenesis relative) proteins, the interactions between plants and associative rhizosphere microorganisms, the genes involved in plant-pathogen interaction, as well as wound- and herbivores-induced defense mechanisms against herbivores (protease inhibitors, oxidative enzymes, cell wall proteins, phenylpropanoid enzymes, variety of phenolic compounds, terpennoids, alkaloids and glucosinolates) are presented. The evolutionary and ecological aspects of plant defenses are discussed in second part.

The third part of the book includes spray applications of „elicitors" (inducers of plant resistance) in agriculture, commercial development of specific elicitors such as BION^{TM} produced by Novartis, effectiveness of microbe-induced resistance against pathogens and herbivores in agriculture and implications of induced resistance for biological weed control.

In conclusion, the book gives an excellent overview about present knowledge of plant defense mechanisms against pathogens and herbivores and is valuable for professionals and students in biology and agriculture.

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