



Annual Plant Reviews, Volume 47 Insect-Plant Interactions

Annual
Plant
Reviews

Edited by Claudia Voelckel and Georg Jander

This latest volume in Wiley Blackwell's prestigious *Annual Plant Reviews* brings together articles that describe the biochemical, genetic, and ecological aspects of plant interactions with insect herbivores. The biochemistry section of this outstanding volume includes reviews that highlight significant findings in the area of plant signalling cascades, recognition of herbivore-associated molecular patterns, sequestration of plant defensive metabolites and perception of plant semiochemicals by insects. Chapters in the genetics section are focused on genetic mapping of herbivore resistance traits and the analysis of transcriptional responses in both plants and insects. The ecology section includes chapters that describe plant-insect interactions at a higher level, including multitrophic interactions, investigations of the cost-benefit paradigm and the altitudinal niche-breadth hypothesis, and a re-evaluation of co-evolution in the light of recent molecular research.

Written by many of the world's leading researchers in these subjects, and edited by Claudia Voelckel and Georg Jander, this volume is designed for students and researchers with some background in plant molecular biology or ecology, who would like to learn more about recent advances or obtain a more in-depth understanding of this field. This volume will also be of great use and interest to a wide range of plant scientists and entomologists, and will be an essential purchase for universities and research establishments where biological sciences are studied and taught.

About the Editors

Claudia Voelckel is a genetics lecturer at Massey University, Palmerston North, New Zealand. She is investigating insect-plant interactions, ecological divergence and the adaptive potential of species in the New Zealand flora. Comparative transcriptomics and genome analyses are an important aspect of this work.

Georg Jander is an associate professor at the Boyce Thompson Institute, an independent plant research institute on the campus of Cornell University in Ithaca, New York. Professor Jander's research is focused on using genetic and biochemical approaches to identify molecular mechanisms of plant resistance to insect herbivores.

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