

BOOK REVIEW

RYAN M.F.: INSECT CHEMORECEPTION – FUNDAMENTAL AND APPLIED. Kluwer Academic Publishers, Dordrecht, The Netherlands, 2002, 330 pp. ISBN 1-4020-0270-X (hardback). Price: USD 149.00.

This book successfully addresses the field of insect chemoreception with equal emphases on both the fundamental and applied aspects. That the author has experience of both aspects facilitated this approach. Michael F. Ryan confesses in the Preface that he "...for years has believed that the rather sharp distinction between fundamental and applied aspects of this discipline, has ill significance of each; and has diminished the significance of fruitful synergies." Hence he undertook the task of presenting a comprehensive account of the major aspects of sustainable insect pest control strategies and their theoretical background. The first part of the book addresses the fundamentals of insect-plant interactions and insect pheromones, as well as structural, electrophysiological and biochemical aspects of

insect chemoreception. This section can serve as a detailed and up-to-date textbook of the basics of chemical ecology of herbivorous insect. The second part of the book describes the use of plant chemicals and cultivars in insect pest control, host plant resistance and the use of synthetic pheromones in plant protection. The final chapter discusses the scope and potential for genetic engineering in plant protection, the social problems it generates and the significance for sustainable global ecology. Each of the ten chapters is supplemented with a list of the key references, which point the way to relevant research projects and provide an up-to-date awareness of recent developments in the field. The volume is illustrated with 82 black and white figures. It is written mainly for graduate students and research workers in the field of insect chemoreception, chemical ecology and sustainable pest control, but biology scholars with broad interests will also find it useful.

J. Žďárek