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# Semiochemicals in Pest and Weed Control

*Richard Petroski*

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**Richard Petroski : Semiochemicals in Pest and Weed Control** before purchasing it in order to gage whether or not it would be worth my time, and all praised Semiochemicals in Pest and Weed Control:

In recent years, research on the control of agricultural pests through the use of semiochemicals has increased considerably because of the many advantages of products developed from natural sources, including the perceptions of these compounds as environmentally desirable as well as the real need for new pesticides with novel modes of action. This symposium series book describes various aspects of recent research and developments related to the study of natural products and semiochemicals in the control of important insect pests including the Formosan termite. These studies detail the isolation, identification, synthesis, structure-activity relationships, and mode of action of semiochemicals and of other natural products as well as biocontrol agents, as they apply to the control of agricultural pests such as the Formosan termite. The book also covers the use of biological agents in conjunction with semiochemicals for pest and weed control. Formulations play a key role in the development of usable pest control products especially products based on unconventional chemical and biological agents. Successful product development begins with understanding chemical and biological agents. Successful product development begins with understanding the application environment and continues through formulation, efficacy, data analysis, and finally marketing. Part of this book will use the development of formulations to protect a biological agent, baculovirus, from

degradation by exposure to sunlight as a backdrop to address the range of work required to develop a successful product for agriculture. What sets this book apart from other symposium series volumes on pest or weed control is that the entire research and development pathway is presented in an orderly sequence: starting from the observation of pest or weed problem, to the demonstration of a possible solution, synthesis of semiochemicals, to formulation and field-testing. The reader can grasp the details of how to do his or her discipline as well as the big overall picture. The book should be especially valuable to those individuals involved in writing research grant proposals.

About the Author Dr. Richard J. Petroski is a research chemist employed at the USDA (Peoria, IL). His research interests are the total synthesis of insect pheromones for use in pest and weed control and the development of new, operationally-convenient, synthetic organic reactions for the purpose of carbon-carbon bond formation. Dr. Maria Tellez is employed as the Director of Mass Spectrometry for the Inter Science Institute (Inglewood, CA). Dr. Tellez is recognized as an expert on the Formosan termite. Dr. Robert Behle is employed as a research entomologist at the USDA (Peoria, IL). His primary research interest is in the area of developing and formulating microbial pesticides for use in agriculture.