

## BOOK REVIEWS

### PROGRESS IN BIOLOGICAL CONTROL

#### New book series

To document latest advances, and to inspire further developments in the area of biological control, a new book series has been launched by Kluwer Academic Publishers. The first volume in this series was published in November 2003, with the title "Environmental Impacts of Microbial Insecticides: Need and Methods of Risk Assessment" (edited by H.M.T. Hokkanen and A.E. Hajek).

The rationale for establishing this new book series rests on the fact that biological control of pests, weeds, and plant and animal diseases utilising their natural antagonists is a well-established, but increasingly rapidly evolving field of applied ecology. Despite its documented applications and systematic development efforts for longer than a century, biological control remains still a grossly underexploited method of pest management. Its untapped potential represents the best hope to providing lasting, environmentally sound, and socially acceptable control of most problem pests in agriculture, and of invasive alien organisms threatening global biodiversity.

Biological control in many cases improves pest control efficiency, while at the same time resulting in a better quality of food (no pesticide residues) leading to a higher market price of the products. Replacement of chemical control by biological control has important socioeconomic, humanitarian, environmental and ethical implications. It creates independence of the farmer from large chemical industries, promotes social cohesion because biological control methods are applicable everywhere, agents are usually not patented and are relatively easy to produce; biological control is very well applicable in small scale agriculture, specific product agriculture, and in rural areas; further, health risks associated with chemical control do not exist for biological control. Reduction in the use of chemical pesticides substantially contributes to the conservation of natural resources, and results in a considerable reduction of environmental pollution, encouraging biodiversity. Reduction in pesticide production will also reduce risks for workers in chemical industry, and environmental risks due to transport and storage of pesticides. Biological control is thus contributing strongly to an improvement of agricultural and natural environments.

Beyond agriculture, biological control methods are the most important tools in the control of invasive alien species, which in growing numbers threaten natural habitats and species all over the world. Indeed, the control of invasive non-agricultural species is a stated responsibility of the signatories of the Convention on Biological Diversity.

Based on the overwhelmingly positive features of biological control, it is the prime candidate in the search for reducing dependency on chemical pesticides. Public demand for finding solutions based on biological control is the main driving force in the rapid developments in the various strategies of utilising natural enemies for controlling noxious organisms. This new book series is intended to accelerate these developments through exploring the progress made within the various aspects of biological control, and via documenting these advances to the benefit of fellow scientists, students, public officials, and the public at large. Each of the books in this series is expected to provide a comprehensive, authoritative synthesis of the topic, likely to stand the test of time. The series will publish annually 1-2 books, and I encourage colleagues to submit proposals directly to me for either monographs or edited volumes to be published in this series.

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### **Environmental Impacts of Microbial Insecticides Need and Methods for Risk Assessment**

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In many parts of the world, the implementation of biological control strategies, including microbial beneficials, depends on the availability of protocols which take into account the studies on the non-target effects. In general at present there is a concern about the risk assessment of beneficial organisms, and some books and papers detailed these topics, with particular attention to arthropods. "Environmental impacts of Microbial Insecticides" is the first opera about risk assessments of microbial agents and it collects contributions of 26 world wide scientists. It contains exhaustive discussions on risk assessment, environmental impact and safety of microbial agents used in biological control. The book is divided in the following sections: General framework, Entomopathogenic fungi, Viral insecticides, Entomopathogenic microsporidia, Bacterial insecticides, Entomopathogenic nematodes, General aspects of environmental risk assessment. This book is addressed to the scientists and technicians involved in IPM strategies and crop protection, extension services, regulatory authorities, politicians and scientists operating in the risk assessment procedures, biofactories and commercial companies.

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