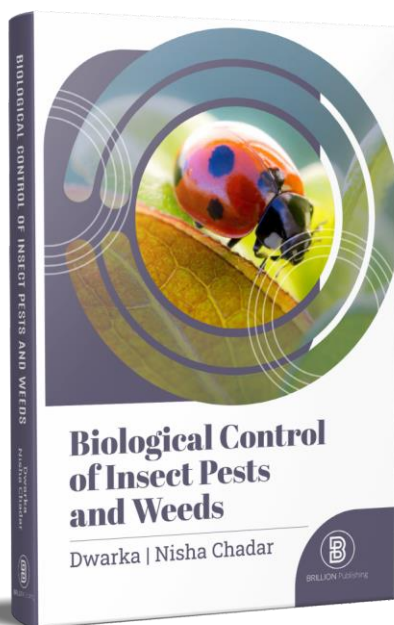




Biological Control of Insect Pests and Weeds



Biological control is a scientifically sound and environmentally compatible approach to pest, pathogen and weed management that utilizes natural enemies and beneficial organisms to suppress harmful species. This book provides a comprehensive and systematic account of the principles, practices and applications of biological control, covering parasitoids, predators, entomopathogens, microbial agents, nematodes and insect-based weed management. It integrates fundamental concepts with practical aspects such as mass production, formulation, quality control, field release, conservation, economics and evaluation of biological control agents. The book also discusses insect pathology, host-seeking behaviour, adaptation, semiochemicals, quarantine regulations, biotechnology and successful biological control programmes. Special emphasis has been given to contemporary developments, emerging trends and future possibilities in biological control. The subject matter is supported with appropriate scientific concepts, examples, tables and relevant technical information to facilitate clear understanding. It is designed to meet the academic and practical requirements of undergraduate and postgraduate students, teachers, researchers, extension personnel and professionals working in entomology, plant protection, biological control and integrated pest management.

Features

- Comprehensive coverage of biological control: The book systematically covers the history, principles and scope of biological control, important parasitoids, predators and pathogens, classical biological control, augmentation and conservation, as well as the biology and behaviour of beneficial insect groups.
- Strong emphasis on practical and applied aspects: Detailed information is provided on insect pathogens, entomopathogenic nematodes, viruses, bacteria, fungi, protozoa and related organisms, including their mode of action, mass production, formulation, quality control, economics, field release, application and evaluation. Biological control of weeds, insect pathology and host-pathogen interactions are also addressed.
- Contemporary approaches and future perspectives: The book incorporates recent concepts related to behavioural adaptation, semiochemicals, quarantine regulations, biotechnology, successful biological control programmes, their analysis, emerging trends and future possibilities, making it useful for both academic learning and practical applications in sustainable pest management.

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- Biology, Adaptation, Host Seeking Behaviour of Predatory and Parasitic Groups of Insects
- Role of Insect Pathogenic Nematodes, Viruses, Bacteria, Fungi, Protozoa, Etc., their Mode of Action
- Biological Control of Weeds Using Insects
- Epizootiology, Symptomatology and Etiology of Diseases Caused by the Above and the Factors Controlling These
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