

# Thrips as Crop Pests

*Edited by T Lewis, Institute of Arable Crops Research, Rothamsted, Harpenden, Hertfordshire, UK*

Thrips have recently surged to prominence as insect pests of field, plantation and glasshouse crops in many countries, associated with increased international trade in fresh vegetables, fruit, flowers and plant propagation material. They can cause direct feeding damage to the aerial parts of plants, resulting in yield loss and spoilage, and some are vectors of destructive plant viruses. Their minute size and secretive habits make them particularly difficult to detect and control.

This book, containing contributions from several world authorities from Europe, the USA and Asia, is the most comprehensive treatise on thrips as crop pests ever to be published. It brings together a vast amount of modern work set against a wealth of background knowledge, covering basic biology, ecology, applied science and pest control. The result is a book indispensable for agricultural advisers and growers concerned with thrips pests, and a unique reference source and stimulus for research entomologists studying these intriguing insects.

## **Contents:**

Contributors

Preface

Acknowledgements

- Pest thrips in perspective
- Structure, growth and development
- Host selection, communication and reproductive behaviour
- Feeding
- Flight and dispersal
- Biological diversity
- Distribution, abundance and population dynamics
- Predation by insects and mites
- Interaction with hymenopterous parasitoids and parasitic nematodes
- Fungal pathogens of thrips
- Field and laboratory techniques
- Culturing thrips and parasitoids
- Feeding and oviposition injuries to plants
- Thrips as vectors of plant pathogens
- Chemical control
- Integrated Pest Management (IPM) of field crops
- Integrated Pest Management (IPM) in tree crops
- Integrated Pest Management (IPM) in glasshouses

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# African Cereal Stem Borers: Economic Importance, Taxonomy, Natural Enemies and Control

*Edited by A Polaszek, International Institute of Entomology, UK*

An assemblage of approximately twenty moth species belonging to the families Crambidae, Pyralidae and Noctuidae constitute the most important cereal pests in many parts of Africa. The caterpillars of these moths bore into the stems of maize, sorghum, millet and rice, often killing the plant, and are commonly known as stem or stalk borers. The cereals attacked are grown by smallholders to feed themselves and their families and are of great importance as the staple food for the population in most parts of Africa. Complex control measures, including the use of chemicals, are often inappropriate.

This book provides fundamental information necessary for formulating integrated pest management of African cereal stem borers, in particular any natural enemy component. Firstly, the economically important species are characterized regionally and according to their biology and host plants, both wild and cultivated. The taxonomy of the moths, their larvae and their natural enemies is examined in detail and techniques of rearing are described. Illustrated keys are provided for their recognition, and their distributions and hosts are listed. Finally, the control measures currently in use and those being investigated, are summarized.

This book is essential reading for applied entomologists, agronomists and extension workers with an active interest in cereal production in Africa and will be of value to all those concerned with integrated pest management in the tropics.

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# Distribution Maps of Quarantine Pests for Europe

## Distribution maps of quarantine pests for the European Union and for the European and Mediterranean Plant Protection Organization

*Edited by I M Smith, European and Mediterranean Plant Protection  
Organization (EPPO) and L M F Charles, CAB International (CABI)*

This book is an essential companion volume to *Quarantine Pests for Europe*, 2nd Edition and *Illustrations of Quarantine Pests for Europe*. The three titles are the result of collaboration between CABI and EPPO in the compilation of data on the pests of phytosanitary significance for the European and Mediterranean region.

This present publication provides updated geographic distributions of over 350 pests for which data sheets and illustrations are already available. A map is provided for each pest showing the current world distribution graphically. This is supported by a list of the countries and provinces in which the pest has been recorded with a coded indication of its current status. Coverage extends to insects, mites, nematodes, fungi, bacteria, viruses and parasitic plants. The pests concerned are either entirely absent from the European and Mediterranean region (A1 list) or have a restricted distribution (A2 list). Text within the book is provided in both English and French.

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