Eur. J. Entomol. **95**: 454, 1998
ISSN 1210–5759

BOOK REVIEW

T. Lewis (ed.): THRIPS AS CROP PESTS. CAB International, Wellingford, Oxon, UK, New York, USA, 1997, xii + 740 pp., 65 figs, 33 photographs, 12 colour plates. ISBN 0-85199-178-5. Price GBP 76.00.

The Bible of every thysanopterist and applied entomologist, summarizing all recent knowledge in this research field. The content is extraordinarily comprehensive, giving the newest information on every aspect of the life and control of noxious thrips. In fact, it is the lifework of Dr Trevor Lewis, who concentrated his scientific interest on the study of noxious Thysanoptera. He himself wrote 5 chapters of the book and took care in unifying a further 13 chapters and 3 appendixes of the remaining 19 authors, worldwide specialists in the applied ecology of thrips.

The introductory chapter draws attention to the fact that the importance of noxious thrips is rising day by day. They are spread over the whole world by the transport of plant material, which runs very quickly. Quarantine measures are less efficient. The text continues with the descriptions of the morphology and development of Thysanoptera, their feeding, flight and dispersal. The figures and SEM photos are excellent and mostly unpublished until now. Special interest is given to the mouthparts of thrips, their ways of feeding and to the traces of their noxious activities. The rapid dispersal of injurious species nowadays is discussed. Many species occurring formerly in one tropical country are now distributed pantropically. Even their determination poses problems. About 5,000 species have been described so far, about a fourth of the species estimated to exist. Most of them are plant suckers, only a very small fraction are predators or fungus feeders.

Further chapters contain recent knowledge on the abundance and population dynamics of thrips. New aspects on the mortality of thips are discussed, such as predation by insects and mites and interactions with hymenopterous parasitoids, parasitic nematodes and fungal pathogens of thrips. Substantial information is given on the interactions between thrips and microhymenoptera. Very interesting and instructive is the chapter on field and laboratory techniques, describing how to collect thrips, sample their populations, obtain samples from injured plants and rear thrips on plant materials in laboratory. The chapter is highly useful for plant pathologists, research ecologists, virus researchers and similar specialists. The next chapter deals with rearing thrips and parasitoids. It summarizes all recent practical methods of rearing microhymenoptera on stocks of thrips cultures. The techniques described here are indispensable for the possibilities of developing measures to control injurious thrips. Special interest is devoted to feeding and oviposition damage to plants in the next chapter. In fact, both of these activities can cause serious damage to flowers, crops and different plant tissues in the same way. As a result of thrips feeding, the transmission of viruses is a risk. A survey of recent knowledge in this area is included in the contents. A further chapter discusses the chemical control of thrips populations. The last three comprehensive chapters contain problems of applying integrated pest management in field crops, tree crops and glasshouses. Appendix I surveys all thrips species cited in the volume, with authorities and common names. Appendix II summarizes major crops infested with thrips, with main symptoms and the predominant injurious species. Appendix III is a list of tree crops, associated thrips and components of control. Twelve plates give colour photos of some thrips species, their predators and parasitoids and, especially, the damage done by them to fruits, ornamental plants, vegetables and cereals. The volume contains an incredible amount of new and unpublished information, indispensable for applied thysanopterists, plant pathologists, as well as entomologists in general. Congratulations to such a work!

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