



PRINCIPLES OF INSECT PATHOLOGY

BY

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PREFACE

This book was originally intended primarily for the use of students enrolled in the course in insect pathology being given at the University of California. The need of a textbook in this field was a pressing one since not only did the students find the literature on the diseases and other pathological conditions of insects difficult to obtain and to assess, but no reasonably complete treatment of the subject from the student's standpoint was to be had. To fill this need is the first objective of this volume.

Considering the field as a whole, however, it was realized that, in addition to a textbook for classroom use, the subject was also greatly in need of a reference work. The entomologist and the research worker in biology have not had an available guide to all phases of the subject of insect pathology as such. Some aspects of the field have been treated by other authors (such as Paillot's "L'Infection chez les insectes," published in 1933) but not in a general or by any means complete manner. For most of the information the research worker has been forced to consult widely scattered and often almost inaccessible articles or incomplete accounts in larger volumes. In 1946 the author published "Insect Microbiology," purely a reference book, dealing in a general way with the microbiology of insects. Very few details relating specifically to diseases and pathological conditions in insects were included in this previous volume, which was largely an accumulation and summarization of facts relating to the many biological relationships existing between microorganisms and insects. A development of the large subject of insect pathology was not possible within the confines of that publication. Accordingly, the author turned his attention to the preparation of the present book, which deals specifically with insect pathology, *i.e.*, with the microbial diseases of insects as well as with certain amicrobial diseases, injuries, and abnormalities. The task has not been an easy one. The accomplishments of workers in this field frequently are difficult to evaluate and present in a logical, easily readable form. And too, the field of insect pathology is much larger than most persons realize. Furthermore the subject matter is such as to be peculiarly difficult to present both as a textbook and as a reference book. This nevertheless is what I attempted to accomplish.

Although pertinent references have been cited throughout the book, no attempt has been made to make the volume completely bibliographic. The literature contains over 5,000 references dealing with the diseases of

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