

therefore refreshing to find the paper by Freitag on the analogous situation in the insect vector.

Mitsuhashi has not been able to draw a very encouraging picture in his review of the state of tissue culture studies of vector material. The report by Chiu and Black, however, on the production of monolayers of epithelial-like cells from *Agallia constricta* shows what can be achieved and it is to be hoped that Mitsuhashi's plea for more workers and more work does not go unheeded.

It can only be regretted that so few papers are even indirectly concerned with vegetation in spite of its prominence in the alliterative title of the book. Indeed, only the paper by Broadbent on control measures can claim to cover the third point of this veritable triangle. The inclusion of material on the natural ecology of viruses and vectors in relation to wild and cultivated plants would have made for a more rounded and therefore more useful contribution.

This book is well produced and the quality of reproduction of the photographs is high. Complaints about the high cost of textbooks are now heard on all sides and are so commonplace that their impact is decreasing, but the price of this work seems to be both a curious and an irrational figure. It is, however, to be recommended strongly as a source book of information and ideas on plant viruses and their vectors.

T. W. TINSLEY

## SOLITARY AND SOCIAL INSECTS

### The Lives of Wasps and Bees

By Sir Christopher Andrewes. Pp. 204+16 plates. (Chatto and Windus; London, October 1969.) 35s.

THIS is a popular and informative account of the lives of solitary and social bees and wasps. It is timely and appropriate because there is a wealth of recent information, especially about the social species, from which the author has been able to select. The use now being made in North America of various solitary bees to pollinate lucerne has aroused much interest in the biology and behaviour of other species of solitary bee that might be managed for pollination purposes.

A general introductory chapter, which includes a simple yet adequate exposition of the classification of the Hymenoptera, is followed by eleven chapters on solitary wasps, two on social wasps, five on solitary bees, six on social bees and two on comparative behaviour and evolution.

Whenever possible, the description of a genus includes information on nest sites, locality learning, prey or forage and its collection and transport, and the way the nests are provisioned, eggs laid and the young reared.

Although the author refers to British species whenever possible, some chapters inevitably rely heavily on fascinating accounts of the work of G. W. and E. G. Peckham, P. and W. Rau, H. E. Evans and K. V. Krombein in North America, and J. H. Fabre and C. H. Ferton in France. Any differences in the common names of the same genera on different sides of the Atlantic are, however, carefully pointed out. There are, of course, no common names for most bees and wasps and a useful and unusual feature of this book is the inclusion at the end of each chapter of the names of the insects mentioned in it, together with a guide as to acceptable pronunciation.

Throughout the book there are the underlying themes of comparative ethology and evolution; a final chapter discusses various aspects of the habits of solitary bees and wasps that have evolutionary significance in the development of social life and more adaptable behaviour, and in the acquisition or loss of a parasitic mode of existence.

This book is illustrated by thirty-two fascinating and unusual photographs of bees and wasps engaged in various activities. It should certainly achieve the author's object of interesting more people in the diverse and remarkable habits of these insects.

J. B. FREE

## NEW THINKING ON CANCER

### Scientific Basis of Cancer Chemotherapy

Edited by Georges Mathé. (Recent Results in Cancer Research, Vol. 21.) Pp. ix+96. (Springer-Verlag: Berlin, Heidelberg and New York, 1969.) DM 28; \$7.

THIS book represents the record of a symposium with the hopeful title, *Scientific Basis of Cancer Chemotherapy*, organized by the European Organization for Research into the Treatment of Cancer. The symposium was opened by M. Maurice Schumann, then France's Minister for Scientific Research, whose enlightened interest in cancer research makes welcome reading. The scientific basis as set out in this book seems to be rather slim and uneven, but in places firmer foundations begin to show through the morass of uncertainty which surrounds the subject. Some papers are very brief reviews, some are reports of new work, and others a mixture of both.

One of the main reasons for holding a symposium is that a subject requires new thinking, and in his review of what he calls operational research in cancer chemotherapy, Mathé collects together much new thought on the use of chemotherapeutic agents. Unfortunately, he has little space to analyse these thoughts critically, but he nevertheless succeeds in being both stimulating and thought provoking. New ideas penetrate only slowly into clinical practice and a symposium such as this may aid their dissemination. Resistance to new ideas, never uncommon, becomes more understandable in the treatment of cancer from Tagnon's review of the biological basis (or, more accurately, the absence of biological basis) of hormonal therapy of cancer.

Amiel describes his interesting work on cancer chemotherapy and immune reactions and comes to the conclusion that, at equal toxicity, different drugs may have quite different immuno-suppressive activities. Three papers from research workers of the Chester Beatty Research Institute deal with the important problems of detection of new anticancer agents and with extra and intracellular factors which may influence the effects of such agents on tumours. A short critical review by Connors on the methods available for "screening" compounds for antitumour activity demonstrates how little progress has been made in this field over the past ten years when the subject was last extensively reviewed at a meeting of the New York Academy of Sciences. We were then and we are now in the position of having thousands of compounds in search of a test that will select out a true antitumour agent.

K. HELLMANN

## PRIVILEGE OF MAN

### Principles of Skill Acquisition

Edited by E. A. Bilodeau, with the assistance of Ina McD. Bilodeau. Pp. xii+368. (Academic Press: New York and London, May 1969.) 56s.

ALL but two of the authors of the eleven essays in this book are from American southern or mid-west universities. The choice of topics has clearly been dictated by the specific interests of the editors. The structure is very different from that which I use in teaching the subject, and equally different from that used by other authors and editors who have recently treated the same area<sup>1-3</sup>. The result is a book which is very uneven; some authors have space to deal with the detailed experimental design of their sources of evidence; others are forced to write in generalities which reflect their own hunches rather than the evidence.

It is not entirely clear for whom the book is intended. The preface suggests "junior and senior students of skill acquisition", but this is mentioned as a distinction from an earlier book by the editor<sup>4</sup> which was intended for "a professional and near-professional audience", and which contained very similar material from many of the same