

may turn to an excellent middle-way adopted by the international gathering of plant physiologists. They publish each time they meet a relatively short volume containing only review articles, summarising the progress of the previous four years. This is something plant bacteriolo-

gists and plant pathologists should seriously consider next time they meet on an international basis

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## SHORT BOOK REVIEWS

**Hungarian-USA Binational Symposium on Photosynthesis:** edited and published by MARTIN GIBBS, Brandeis University, Waltham, MA 02254, 1987 163 pp

This little book records the results of a multi-disciplinary project in photosynthesis which has been carried out jointly by US and Hungarian plant scientists since 1983. The 20 papers in this book derive from a joint symposium held in August 1986 in Newport, Rhode Island. They variously cover energy transfer, electron transport, carbon and hydrogen metabolism and induction of photosynthesis. Thus it deals with a broad spectrum of recent photosynthetic research and provides the interested reader with a convenient update of some of the latest findings. These are four related papers, for example, on the regulatory role of fructose 2,6-bisphosphate in carbohydrate metabolism and Weinstein *et al.* describe the RNA requirement in the biosynthesis of  $\delta$ -aminolaevulinic acid from glutamate.

**Biotechnology Information '86:** edited by R. WAKEFIELD, IRL Press, Oxford, 1987 270 pp £32.00

Based on a conference held at Sussex University in September 1986, this paperback ranges in subject matter from the use of protein finger printing for microbial identification to a consideration of public awareness of biotechnology. In between there is much useful information on databanks for protein sequences and hybridomas, on the deposit of microorganisms for patent purposes and on a database of biotechnology business information. There is much of general interest in these pages, and clearly anyone directly involved in plant biotechnology will need to consult it. Unfortunately the publishers were not able to persuade the contributors to stick to the same format and type size for their camera-ready copy, so that it is a decidedly inelegant production.

**Pollen: Cytology and Development:** edited by K. L. GILES and J. PRAKASH, International Review of Cytology, Vol. 107, Academic Press, Orlando, 1987 455 pp \$69.50

Relatively little biochemistry has been carried out so far on plant pollen, presumably because of the difficulty of collecting sufficient for meaningful analyses. What little that is known is described *inter alia* in this special volume, devoted to more biological aspects. At last, the glycoproteins of the self-incompatibility systems are being investigated, as discussed here by T. Gaude and C. Dumas. Pollen also has promise for the transfer of genetic information. For example pollen of white flowering *Petunia* mutants treated with wild-type DNA have given rise to anthocyanin containing flowers. Dieter Hess here describes the techniques needed to bring about such transformations. Pollen biochemistry is an area of great fascination and practical importance and anyone wishing to enter the field will find the necessary stimulation in the different chapters of this review.

**Les Modèles Moléculaires des Biomembranes:** by PAUL MAZLIAK, Hermann, Paris, 1987. 135 pp 160 francs.

This neat little volume describes the various models that have been put forward for the arrangement of lipids and proteins in membranes to explain the way that the membrane functions in the living cell. It is well illustrated with appropriate diagrams, has a glossary and a brief bibliography.

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