

the pollen grain wall and wind dispersal, are considered and discussed. There is a useful figure to illustrate and correlate the varied terminology used for exine structure in the literature. A statement, in this part of the book, to the effect that the sacci (as in *Pinus*) are there to reduce the free fall velocity of these wind dispersed gymnosperm pollens, surprised me. This was further compounded when I discovered there were no references to J. Doyle's work on pollinating mechanisms in conifers in the literature cited.

The next part of this work, 66 pages, is on Management. This covers a number of interesting topics; e.g. pollen collection for seed production, together with its uses in pure science and medicine. The section on pollen storage should be of interest to plant breeders in general. The long term storage of some pollen is recorded, but the development of pollen banks for grain and cereal crops is not yet possible due to some inherent factors within these plants. I personally enjoyed

Chapter 7 which is mostly devoted to pollen and bees. Half of this work, some 8 chapters is devoted to Biochemistry and it is this aspect of the pollen story, pollen as a substrate for biochemical studies, the authors are hoping to emphasize. Separate chapters cover general chemistry, carbohydrates, lipids, proteins and amino acids, nucleic acids, pigments, enzymes and growth regulators. Next to proteins, there is a chapter on antigens in relation to human allergies and hay fever.

This book is clearly written and holds together better than any comparable edited symposium volume, but it suffers in that no two people can hope to cover in depth all the topics encompassed. To me at least the authors have achieved their aim in drawing my attention to the many different aspects of the pollen story.

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Phytochemistry, 1975, Vol. 14, p. 2536. Pergamon Press. Printed in England.

ADDENDUM

R. Davies, W. McLaird and R. L. M. Synge (1975) *Phytochemistry* **14**, 1591–1596.

The Supplementary Publication No. is 90016.