Phytochemistry, 1969, Vol. 8, pp. 939 to 941. Pergamon Press. Printed in England

BOOK REVIEWS

Quantitative Paper and Thin-layer Chromatography: Edited by E. J. SHELLARD. Academic Press, London, 1968. 140 pp. 42*s*. 6*d*.

THIS volume contains the eleven review papers presented at a Symposium held in London on 3 and 4 January 1968 and the editor and publishers are to be congratulated on producing the publication of the proceedings so speedily. Scientists in general often fail to give precise details of their experimental procedures in published papers so it is refreshing to find in this volume that all is revealed—every conceivable snag that might arise during the quantitative estimation of plant products by chromatographic means is accounted for. As Professor Fairbairn points out in the opening chapter, major errors, which are often overlooked, may arise during the spotting-up of chromatograms. Use of most of the standard syringes and micropipettes can involve errors in accuracy and mechanical application is recommended by the author.

Although the title mentions both paper and TLC, it is TLC which is given most attention and five of the ten succeeding chapters deal with quantitative aspects of TLC using densitometry, fluorimetry and direct and indirect spectrophotometry. The final three chapters deal with the measurement of radio-active materials after separation on TLC. All these methods require expensive apparatus and are more or less time-consuming and C. A. Johnson, in a later chapter, rightly puts in a special plea for visual assessment in cases where a high degree of accuracy is not required. A rather amusing sidelight on the sex war is introduced here when Johnson reminds us that in the visual assessment of colours, women outshine men and accordingly should always be employed for comparing the intensities of coloured spots on chromatoplates.

Most authors limit their discussion to a single class of natural product, usually the alkaloids, and the reviewer would have welcomed a summary chapter assessing the relative merits of the different techniques as applied to each of the major classes of plant substances. Perhaps this was asking too much of the organizers of this particular Symposium. Nevertheless, this is a very useful book, nicely produced with diagrams, figures and an adequate index, and it will be required reading for all phytochemists contemplating the quantitative estimation of low molecular weight plant constituents.

J. B. HARBORNE

Recent Aspects of Nitrogen Metabolism in Plants: Edited by E. J. HEWITT and C. V. CUTTING. Academic Press, London, 1968. 280 pp. 80*s*.

THERE is a notable shortage of good books on plant nitrogen metabolism; apart from the monograph of H. S. McKee, published in 1962, but which is mainly devoted to the older literature, and the S.E.B. Symposium Volume of 1959, one is forced to turn to Annual Reviews and similar sources for the most recent developments in this field. From its title, the present volume would appear to fulfil the need for an up-to-date account of the subject,