The Flavonoids—Advances in Research since 1980: edited by J. B. HARBORNE. Chapman & Hall, London and New York, xiii + 621 pp. £95.

The flavonoids are widely distributed plant constituents responsible for much of the colouring in nature and their significance in the diet and in medicine is being increasingly recognised and understood. This volume continues the description of flavonoids which began with 'The Flavonoids' in 1975 and was followed by 'Advances in Research in 1982.' The first 10 chapters deal with the various classes of flavonoids under the headings (authors in parentheses) of anthocyanins (J. B. Harborne and R. J. Grayer), flavans and proanthocyanidins (L. J. Porter), *C*-glycosylflavonoids (J. Chopin and G. Dellamonica), biflavonoids (H. Geiger and C. Quinn), isoflavonoids (P. M. Dewick), neoflavonoids (D. M. X. Donnelly and M. H. Sheridan), flavones and flavonols (E. Wollenweber and M. Jay), flavone and flavonol glycosides (J. B. Harborne and C. A. Williams), minor flavonoids (B. A. Bohm), and miscellaneous flavonoids (H. Geiger). Of these the isoflavonoids are described at length because of the many novel findings reported. The neoflavonoids are reviewed from 1975 as they were not included in the 1982 supplement. Aspects covered include identification, occurrence, distribution, isolation techniques, chemistry, structure, nomenclature, analysis, reactions, role and applications, where appropriate.

The remaining six chapters are concerned with the major advances which have occurred in flavonoid biosynthesis (W. Heller and G. Forkmann) and in our understanding of the role of flavonoids in flower colour (R. Brouillard), together with detailed and critical surveys of flavonoid distribution and evolution in lower plants (K. R. Markham), in gymnosperms (G. J. Niemann), in monocotyledons (C. A. Williams and J. B. Harborne) and flavonoid evolution in dicotyledons (D. E. Giannasi).

The editor and authors are to be congratulated on producing such a well written and presented book which maintains the high standards of its predecessors and the continuity of the series in providing a contemporary account of these ubiquitous and fascinating compounds. It is a most valuable work of scholarship and of reference for those working in the many fields on which flavonoids impinge such as chemistry, biochemistry botany, medicine, nutrition and food science, both academic and industrial. Particularly useful is the checklist of all known flavonoids—almost 4000 compounds—which together with an alphabetical key to trivial names of flavones and flavonols is now provided as a separate appendix. There are plant species and general subject indices.

This 'Advances' contains slightly less pages than the 1982 supplement but because of its smaller print and double-columning it must contain at least double the amount of text. On this basis, despite its apparently high price, it is cheaper than twice the 1982 price (£49.50) even without taking into account increased inflationary costs of the last 6 years. When the amount of careful, dedicated work necessary to compile these chapters is additionally considered—and here I write with the experience of being a contributor to the 1975 book—then this volume must be considered excellent value for money. Its larger size also reflects the increased research output during these recent years which reinforces the need for a review volume like this bringing all the data together under one cover. The question now to be asked is whether, with research cut-backs (in the U.K. at least) flavonoid research has reached its zenith?—one hopes not, but watch this space in 1993.

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