This must surely have been in the minds of Drs Bailey and Mansfield when they set out to prepare the book under review, simply entitled *Phytoalexins* Indeed, the present data on phytoalexins are put into perspective here by a historical introductory chapter by B J Deverall and a forward-looking valedictory chapter by the editors entitled Current Problems and Future Prospects

In between, there are eight chapters detailing our present knowledge of phytoalexin production throughout the plant kingdom An authoritative account by J L Ingham on the phytoalexins of legumes is followed a second chapter on solanaceous phytoalexins by J Kuc, while a third by D T Coxon reviews the phytoalexins formed in all other families Biosynthesis is discussed comprehensively by A Stoessl and metabolism by H D Van Etten and coworkers A wide ranging contribution on phytoalexin toxicity by D A Smith covers antibacterial and animal toxicity as well as the more familiar fungitoxicity of these antimicrobial substances There remain to mention the two key chapters of the book on the pathological role of phytoalexins—their contribution to plant disease resistance (J W Mansfield) and the mechanism of their accumulation, as well as of their elicitation (J A Bailey) The editors here take a well balanced but properly critical view of the many experiments that have set out to establish a role for phytoalexins in plant–pathogen interactions It is here that our present knowledge is particularly incomplete and where future experiments might be most profitably directed

In this excellent monograph, the authors and editors have provided a most valuable survey of the phytoalexin field, which is both remarkably comprehensive and very up-to-date The whole is amply illustrated with tables, figures, electron micrographs and formulae and there is a very adequate subject index The references (with titles) appear at the end of each chapter in alphabetical order and although there is no author index, cross reference is not too difficult In all, this is a really first class addition to the literature of both phytochemistry and plant pathology and this will remain an essential reference point for many years to come

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The Biochemistry of Alkaloids: by T ROBINSON Second edition, Springer, Berlin, 1981 225 pp DM 88

I remember when the first edition of this very welcome text came out being disappointed that the author chose such a narrow definition of the word 'biochemistry' that he mainly discussed biosynthesis at the expense of natural distribution, further metabolism, function and biological properties In this second edition, the scope has been widened with a more extensive treatment of metabolism and a chapter on the biochemical effects of alkaloids which deals in the main with their pharmacological effects on mammalian systems These are certainly useful additions but it is sad that little is included on chemotaxonomy or on ecological aspects The remarkable utilization of plant pyrrolizidine alkaloids by danaid butterflies as sex pheromones surely deserves at least a paragraph or two

The main thrust of the book, therefore, remains the pathways of biosynthesis and here it is excellent In view of the considerable progress made since 1970, there has been considerable updating of the original text and this is reflected in the fact that *ca* 40 % of the literature references are taken from the researches of the last decade The discoveries of certain of the enzymes of biosynthesis are recorded and biosynthetic studies in tissue culture are mentioned, though perhaps without the emphasis they deserve Dr Robinson has a very attractive, lucid and informative style of writing and this second edition is probably the best introductory text available on the general biochemistry and biosynthesis of these plant bases It can be warmly recommended to the student reader

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