

into guanidines, indoles and pyrroles with a generous fourth section covering miscellaneous types. Many of this fascinating group of natural products are of algal origin, others are found in sea animals but are probably of dietary origin, while yet others found in sponges and sea hares are presumably synthesized *in situ*. The biosynthetic origins of most of these alkaloids, however, remain to be unambiguously determined. Other examples of animal alkaloids are incidentally used for illustrative purposes in the chapter by Highet and Wheeler and range from frog poisons and fire ant venoms to ladybird secretions and

beaver pheromones. Plant alkaloids, however, come into their own in the section on MS, when the use of laser desorption with detection by MS-MS and the use of MIKES for cactus alkaloid screening are described. This is an excellent article, describing as it does the host of new NMR techniques which now permit the elucidation of a completely novel alkaloid structure with only a few milligrams of sample.

Plant Science Laboratories, JEFFREY B. HARBORNE
University of Reading

The Dynamics of Host Defence: edited by J. A. BAILEY and B. J. DEVERALL. Academic Press, Sydney, 1983. 233 pp. \$33.

Toxins and Plant Pathogenesis: edited by J. M. DALY and B. J. DEVERALL. Academic Press, Sydney, 1983. 181 pp. \$25.

In view of the spate of books, review articles and symposia proceedings on phytoalexins, phytotoxins and antimicrobial defence systems in plants, one might suspect that the leading workers in biochemical plant pathology are suffering from literary over-exposure. The arrival of two further books on these topics might seem superfluous and yet both add usefully to the existing literature and can be warmly recommended. In spite of their origins as symposium papers at an International Congress of plant pathology held in Melbourne in 1983, they contain well-rounded review articles which give excellent coverage of the recent literature.

The first volume on host defence contains essays on

host-pathogen recognition (J. A. Bailey), structural barriers (J. R. Aist), chemical barriers (A. Stoessl), resistance to virus infection (L. C. van Loon) and induced systemic resistance (J. Kuc). The second volume concentrates on the recent spectacular successes in solving the structures of several host-selective toxins and includes a chemical chapter by V. Macko on *Helminthosporium* toxins. Details of the various 'toxoids', toxins and latent toxins of *H. sacchari* are described. Other chapters deal with toxins as chemical determinants of disease (R. P. Scheffer), their modes of action (D. G. Gilchrist), their roles in pathogenesis (S. Nishimura) and their future prospects (R. D. Durbin). Together, these books are essential reading for research workers in these fields and they are also useful adjuncts to any university course in ecological biochemistry, phytochemistry or plant pathology.

Plant Science Laboratories, JEFFREY B. HARBORNE
University of Reading