

## Book Review

**Trichothecenes: Chemical, Biological and Toxicological Aspects.** Edited by Y. Ueno. Elsevier Science Publishing Co. XIV + 312 pp. 1983. Price: US\$85.00.

This book is volume 4 of the series 'Developments in Food Science', the first volume of which was on aflatoxins and published in 1978. Even without the publicity of the yellow rain affair and the Arizona chicken problems, the trichothecenes have been recognised as an important group of mould metabolites and a single volume covering their chemistry, analysis, mycology and toxicology should be very useful. These topics have, of course, already been ably covered in a number of recent books on mycotoxins so one is looking for a synthesis of recent studies against a background of earlier work and general information, in a book of this kind.

Professor Ueno has been involved with studies of trichothecenes for many years and has made many valuable contributions in this field. He has brought together a large team of eminent mycotoxicologists to contribute to the present book as authors of individual chapters. Because there are so many contributors, parts of the book lack cohesion and there is some duplication of information. Some overlap is inevitable as each author tries to make his or her chapter complete and consistent but it should have been possible to avoid tabulating the  $^{13}\text{C}$  NMR spectra of several macrocyclic trichothecenes twice!

The section on the mycology of these important mould metabolites is

disappointing for it does not present a clear picture of the nature, range and relationship of the trichothecene-producing fungi. Much is made of the earlier confusion in the taxonomy of the genus *Fusarium* but I feel that some of this confusion remains encapsulated in this volume.

Thus, Table 1-2 on page 80 (it is necessary to give the page number because there are several Tables 1-2 scattered through the book!) lists *F. moniliforme* as producing T-2 toxin and diacetoxyscirpenol. There is no denying that this may be a very toxigenic species but it is by no means clear that it is capable of producing these two trichothecenes. Indeed, Table 3-3 (page 105) shows that, of 133 isolates of *F. moniliforme* from Israel, only one gave a strong reaction in the rabbit skin test and that only under one of five growth conditions. The rabbit skin test is a particularly sensitive test for both of these trichothecenes. Tables 14-3 and 14-4 (pp. 303 and 304) give further confirmation that this species does not produce these trichothecenes.

A valuable aspect of the book is to present a number of chapters on the occurrence and significance of trichothecenes, country by country, each presented by someone working in that country. Parts of the world covered include Japan, the USA, Canada, Finland, Hungary, Denmark, Italy, the United Kingdom, Yugoslavia, South Africa, India, Taiwan, France and Germany.

Because it brings together the experience of such a large number of people, this book undoubtedly contains a lot of very useful information in important and practical aspects of applied mycology, toxicology and animal husbandry. It is unfortunately not a book that can be read from cover to cover in a continuous process of critical revelation, but it can be searched for specific information as the need arises. Each chapter has its own bibliography and the whole book has both organism and subject indices. Professor Ueno has made a valuable contribution in concentrating our attention on the significance of the trichothecenes.

**M.O.Moss**