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Book Reviews

Mycotoxins in Dairy Products. Edited by Hans P. van Egmond. Elsevier Applied Science Publishers Ltd, London, 1989. x + 272 pp. ISBN 1-85166-369-X. Price: £42.00.

There are two aspects to the concern about mycotoxins in dairy products; the possibility that moulds growing on and in such commodities as cheese may produce mycotoxins directly into the matrix of the cheese, and the possibility that mycotoxins may be secreted in milk following consumption of contaminated animal feed by farm animals.

There is special concern about the widespread occurrence of aflatoxin B_1, a carcinogenic and acutely toxic metabolite of *Aspergillus parasiticus* and *A. flavus*, in food and animal feeds. It should not be present in liquid milk because these moulds would not normally be a problem in this commodity. It is, however, common in animal feeds and can be converted by the cow, and other animals, into aflatoxin M_1 some of which is then secreted in the milk. The presence of aflatoxin M_1 in UK milk during 1978–79 led to government action which reduced the import of animal feeds contaminated with B_1 leading to a considerable reduction in the presence of M_1 in UK milk.

Because of the special anxiety over the aflatoxins, four of the seven chapters of this book are justifiably concerned with the occurrence, significance and analysis of aflatoxin M_1. Dr Van Egmond, of the National Institute of Public Health and Environmental Protection in The Netherlands, is especially well qualified to edit this book having been involved in mycotoxin studies and their significance to society for many years. He provides an introduction and an overview of the occurrence, toxicity and regulation of aflatoxin M_1. The next two chapters deal with analytical methodology including chromatography and immunochemical methods. The two come usefully together in the development of highly specific immunoaffinity columns used as an extraction and clean up stage for HPLC.

There is a very useful chapter on stability and degradation of aflatoxin M_1, which deals with the fate of the toxin during processing as well as treatments designed to degrade aflatoxin in contaminated commodities to make them available for use.

The final two chapters deal with the significance of a wider range of toxic metabolites which might be present in milk products with special emphasis on cheese.

The editor is to be congratulated in bringing together a team of experienced mycotoxicologists in the production of a useful book which can be recommended to all who have an interest in the safety of food.

Maurice O. Moss

Analysis of Oilseeds, Fats and Fatty Foods. Edited by J. B. Rossell and J. L. R. Pritchard. Elsevier Applied Science Publishers Ltd, London, 1991. xii + 558 pp. ISBN 1-85166-614-1. Price: £86.00.

There are many stages in the analysis of oilseeds, fats and fatty foods in which errors may arise. Sampling, extraction, and selection and application of an appropriate analytical method from the multitude reported by national and international standardising bodies, as well as others described in the literature, may all introduce errors. This text aims to provide information about the background to analysis, and discusses the analytical methods available.

W. D. Pocklington discusses the precision and accuracy of analysis and the standardisation of analytical methods. This is followed by chapters describing the analysis and properties of oilseeds, oilseed residues, mycotoxins, glucosinolates, vegetable and animal fats and oils, and yellow fats. Extraction and determination of fat content, analysis and quality control of processing and processed fats, and sampling for analysis are also discussed.

The contributors to this book have considerable experience in the analysis and properties of the materials discussed, and the chapters represent valuable reviews of the analytical procedures available. In many cases, the procedures of standardising bodies are described in outline. Each chapter includes an extensive list of references.

The chapter on animal carcass fats and fish oils is a little out of step with the rest of the book in that it contains more detail about composition of fats than about analysis. However, most chapters contain much useful information and this text is strongly recommended for scientists involved in the analysis of oilseeds, fats and fatty foods.

M. H Gordon