



DEVELOPMENTS IN FOOD SCIENCE 31

# MODERN METHODS IN FOOD MYCOLOGY

*Edited by*

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## PREFACE

This book represents the Proceedings of the Second International Workshop on Standardisation of Methods for the Mycological Examination of Foods, which was held in Baarn, the Netherlands, on 20 to 24 August, 1990. This Workshop was a follow up to the highly successful First International Workshop, held in Boston, USA in July 1984. The Proceedings of that Workshop were published as *Methods for the Mycological Examination of Food*, edited by A.D. King, J.I. Pitt, L.R. Beuchat and Janet E.L. Corry, Plenum Press, New York (NATO ASI Series, Series A: Life Sciences, Vol. 122, 1986).

Planning for the Second Workshop commenced in 1987, with a questionnaire seeking ideas for studies on media and techniques, and for potential participants. Suggestions from the survey were then developed into a series of collaborative studies among participants and other interested persons. Collaborative studies were set up and coordinated by Dr L.R. Beuchat. The editors wish to thank him, those who collaborated in interlaboratory studies and the other individuals listed on pages xi-xiii for their input which contributed so much to the success of this Workshop.

A major role of fungi in nature is to complete the carbon cycle by decomposition of organic matter. In this role, fungi become competitors with food technologists who wish to preserve food for later consumption by man or animals. Important reasons to study fungi are the economic losses associated with spoilage of foods and the production of mycotoxins in foods and feeds. Thus the main thrust of the workshop was to develop, test and promote better methodology for the detection and enumeration of fungi in foods. We wish to standardise methods, with resulting improvements in communications, interpretation of results between laboratories and improved facilitation of international commerce. Planning for the First Workshop involved a decision not to include any papers on mycotoxins, as this area is considered to be more closely related to chemistry and toxicology than to mycology. The Second Workshop also did not include mycotoxin research, but several studies have produced media for selectively isolating mycotoxicogenic fungi.

The planning of the Workshop was in the hands of Larry R. Beuchat, Ailsa D. Hocking, A. Douglas King, John I. Pitt, Robert A. Samson, and David A.L. Seiler. Thirty five participants attended. Nine collaborative studies and 40 individual papers were presented over five consecutive days. Each day included sessions for discussion of the previous day's presentations. At a final plenary session, recommendations for methods to be adopted were prepared and agreed on. These are summarised at the end of this book, together with a section on the mycological methods and media considered, with current knowledge, to be the most satisfactory available. We recommend these methods to all who deal with the problems of fungi in foods.

The Second International Workshop was sponsored by the Dutch Royal Academy of Sciences, Amsterdam, Head Inspectorate for Health Protection, Rijswijk, Pharmachemie BV-Oxoid Nederland, Haarlem, Unilever Research, Vlaardingen, Avebe, Foxhol, Cehave, Veghel, Holland Biotechnologie BV, Leiden in the Netherlands, by Eco-Bio, Genk,

in Belgium, and by Oxoid Australia. We wish to sincerely thank all of these sponsors. Local arrangements for the Workshop were very efficiently and smoothly organised with the assistance of Mrs Ans Spaapen-de Veer and Tineke van der Berg. We wish to thank each of them, as well as other members of staff of the Centraalbureau voor Schimmelcultures, Baarn.

The Editors

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## INTRODUCTION