

Preface

Microbiology may be described as one of the younger sciences with its history, as a precise subject, only dating as far back as Pasteur in the mid 1800s and his revelation both of the role of microorganisms in nature and their importance to human welfare. Medical scientists rapidly took up the challenge, with their area of microbiology flourishing and expanding almost in complete isolation from the rest of biology.

We now know, of course, that microorganisms have always played an important, if not essential role, in the biosphere with fermented foods and beverages, plant and animal diseases and nutrient cycling foremost in their sphere of activities. Within the last twenty years, microbiology has received two enormous boosts with the developments in microbial genetics and genetic engineering probably being the most influential, and the greater awareness of pollution and environmental sustainability following a close second.

In 1990, your editor had the privilege and pleasure of being elected as President of The Association of Applied Biologists in the United Kingdom and, as the topic for his three-day Presidential Conference, chose *'The exploitation of microorganisms in applied biology'*. This meeting stimulated great interest in a wide range of subject areas, from weed control to nematology, from plant breeding to plant pathology, from mushrooms to mycorrhiza. The proceedings of this meeting were published in *Aspects of Applied Biology*, No. 24, 1990. However, it was quite evident that there were many aspects of the exploitation of microorganisms that were not covered in these Proceedings and your editor, in conjunction with Mr Nigel Balmforth of Chapman & Hall, set out to produce a more comprehensive publication. The present book is an attempt to combine reviews and current positions of the 'state of the art' in 17 different areas of microorganism exploitation. It is hoped that biologists of every denomination will be able to find something of interest in, or near, to their own work field but, perhaps more importantly, they may also derive benefit from the volume of information presented on topics as diverse as nitrogen fixing bacteria, detoxification of industrial waste and the commercial view of inoculant production.

I would like to record my thanks to The Association of Applied Biologists and the many members who have contributed to this book. Also to Mr Nigel Balmforth and his colleagues at Chapman & Hall, to my very patient wife and to my very hard working secretaries, Mrs Dorothy Jones and Mrs Doreen Thomas.

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