

PREFACE

The need for fungicides is created by fungal activities detrimental to the welfare of mankind. As the bases for such destructive activities are identified, compounds are sought to control the fungi involved. Fungi had been identified as the basis of many problems a half century or more ago, but at that time very few fungicides had been found to control them. A great number of compounds have since been discovered, new methods of application have been developed, and new concepts on modes of action have evolved. At no time in the past has interest in fungicides been greater than during the current period of transition from the protective to the systemic fungicide.

A number of years have elapsed since a comprehensive coverage of fungicides appeared in two volumes edited by D. C. Torgeson (Fungicides: An Advanced Treatise, 1967). Since then, there have been marked advances in the development of systemic compounds, and a rising awareness of the toxicological hazards and the environmental impact of fungicides has evolved. With the advent of more selective fungicides, fungal resistance has emerged as a major problem. In this rapidly changing field, it is the purpose of this book and its companion volume to summarize and evaluate recent developments, to integrate these with significant developments of the past, and to attempt some projections into the future. We believe the various contributors to the volumes have achieved a reasonable measure of success for these goals.

The overall organization of the two books follows a biological—biochemical—ecological approach rather than one based on chemical class. However, individual authors have utilized the latter approach where it was most appropriate for their particular contribution.

The first of the two volumes focuses on the discovery, development, and use of fungicides and the problems associated therewith in plant pathology, medicine, wood preservation, and industry. This volume considers fungicides according to their effects and their fate as they interact with biological, biochemical, and ecological systems.

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