Processing of Poultry
Edited by G.C. Mead

This book brings together, in a comprehensive form, the large amount of technical and scientific information now available on poultry processing. A wide variety of scientific disciplines are included and aspects as diverse as bird welfare and the eating quality of the final products are covered. This volume deals first with the concept of quality and quality requirements in the industry and then with process technology and its effects on meat quality and yield. With the current awareness of microbiological hazards chapters are included on Problems and Control of Process Contamination and Microbiological Criteria for Poultry Products. Three of the eleven chapters are concerned with further processing and factors affecting the functional properties of meat in product development. There is also a full account of methods available for the disposal of processing wastes. The international authorship takes into account different legislative requirements affecting poultry meat production, particularly those of North America and the European Economic Community.

Processing of Poultry provides up-to-date reviews of research findings in all key areas with full references and will be invaluable to researchers and students of food science and technology and all those responsible for poultry meat production.

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MEAD

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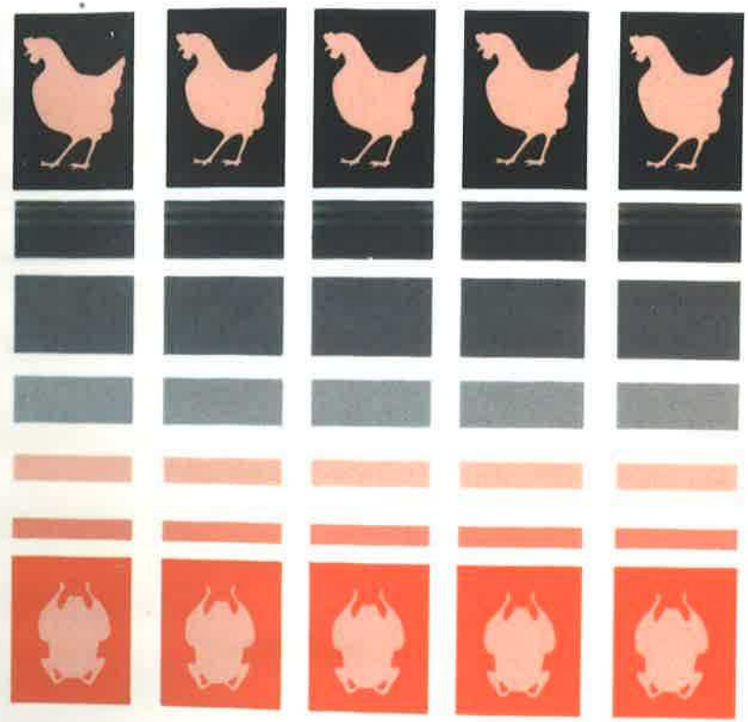

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Preface

Over the last 40 years, poultry-meat production has undergone considerable expansion in much of the developed world. The industry has changed from an essentially farm-based operation to one where economies of scale in rearing and processing have led to a high degree of operational efficiency. As a sequel to these changes, however, there is now greater emphasis on product quality, rather than mere 'production at least cost'. Also, the more recent growth in further-processed and 'value-added' convenience items has helped to maintain a buoyant market for poultry, and has shown that the industry can rapidly adapt to changing consumer needs and preferences.

It is in the areas of primary processing and further-processed product development that the greatest technological changes have occurred within the industry. Processing, in particular, has become more mechanical, so that most stages in the production of oven-ready carcasses or cut-portions are now either semi- or fully-automated, thus reducing labour costs and helping to maximise the speed and efficiency of the process. However, not all of the changes that have taken place have necessarily been in the best interests of maintaining product quality, e.g. in relation to meat tenderness and microbial contamination, and it is essential for any processor to understand fully the effects of processing on all aspects of meat quality, including the efficacy of possible control measures.

A similar situation arises with regard to further processing and product development. Early formulations were relatively primitive and based on empirical observations, but present market demands and opportunities require greater sophistication. Development of high-quality products now involves an understanding of the functional

properties of the raw material, as well as a thorough knowledge of manufacturing technology and product distribution and marketing. In other words, to succeed, the modern producer has had to become highly professional in virtually all sectors of the business.

Although poultry meat is rightly regarded as a wholesome, nutritious and cheap form of dietary protein, it is not without some problems. One of these is an unfortunate association with human food-borne illness, due to microbial contamination and the unreliability of consumers in handling foods properly in the kitchen. The origin of this problem lies with the large-scale operations used for rearing and processing the birds. Under such conditions, the transmission of minority microorganisms, e.g. salmonellas, occurs readily and cannot be easily prevented. Nevertheless, it is in the interests of both processors and consumers that proper attention is given to plant hygiene, thus limiting contamination of the product with any organisms capable of causing either food poisoning or meat spoilage.

As the chapters in this book show, the processing of poultry has wide-ranging implications that involve a variety of scientific disciplines, and cover aspects as diverse as bird welfare and the eating quality of the final product. Hence, in planning a book of this kind, it soon became apparent that effective coverage of the subject would require a multi-author approach, with individual contributors providing a 'state-of-the-art' review of each of the main areas that together constitute 'processing'. In this form, a large amount of information can be put together to serve the needs of industry, legislators and students of food science and technology. Quite deliberately, the book has an international authorship and takes account of different legislative requirements affecting poultry–meat production, particularly those of North America and the European Economic Community.

Although the different aspects of poultry processing are inevitably interrelated, the overlap between chapters has been kept to a minimum, and I would like to thank the individual authors, both for their helpfulness and for the way in which they have cooperated in producing a book which aims to be informative, adequately referenced and up-to-date.

G. C. MEAD

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