

# Textbook of Poultry, Egg and Fish Processing Technology

## About the Book

Poultry and fish production is poised to take quantum leap in view of projected large increase in the demand for animal protein demand in throughout the world. As the growth of agriculture approaching a plateau, farmers are slowly relaying on poultry and fish production for their sustenance. Thus, poultry and fish are important subsectors of agriculture globally. As per capita income growth is around 6 % and requirements of animal proteins are increasing, a reliable and consistent access of safe, fresh, natural, nutritious and flavorful meat and egg supply needs to be explored as an urgent health claims priority. The book entitled "*Poultry, Egg and Fish Processing Technology*" will be an important facet of the food industry because it provides a wealth of information in production, processing, marketing and quality control of poultry and fish products.

The book is divided into three different units and contributed about 25 Chapters and 24 Appendices. The **UNIT I: Poultry Processing Technology** briefed about current status of Indian poultry industry, anti-nutritive factors in poultry feed, layout and design of poultry dressing plant, grades of poultry, processing and further processing, value addition, nutritive value, preservation, spoilage, packaging, quality control and marketing of poultry meat, poultry by-product utilization, cleaning and sanitation of poultry processing equipments and premises. **UNIT II: Egg Processing Technology** deals with structure, chemical composition and nutritive value of eggs, preservation and spoilage of eggs, factors influencing the egg quality, different egg proteins and their functional properties, quality assurance and marketing. **UNIT III: Fish Processing Technology** focused on fishery resources in India, unit processing of fish, value added fish products, preservation, spoilage, quality control and marketing of fish and fish by-products utilization. **Appendices** in the book provided with different **national and international standard** of food additives, chemical and microbial contaminants in poultry, egg and fish products which are valuable information to the readers.

It is hoped that the book will be of immense value to the U.G./P.G. students of Livestock Products Technology/Animal Products Technology/Post-Harvest Technology and persons engaged in different poultry and fish processing lines.



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Poultry, Egg and Fish Processing Technology

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# Textbook of Poultry, Egg and Fish Processing Technology



**Ashim Kumar Biswas  
Prabhat Kumar Mandal**

*Textbook of*  
**Poultry, Egg and Fish Processing  
Technology**

*by*

*Ashim Kumar Biswas  
Prabhat Kumar Mandal*

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LWT-Food Science and Technology, Meat Science, International Food Research Journal, Asian-Australasian Journal of Animal Sciences, Journal of Food Science and Technology, International Journal of Food Properties, Indian Journal of Animal Science, Indian Journal of Poultry Science etc. He received several *Best research poster and oral paper awards* by the different scientific organizations.



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## Preface

Processing of animal products is a utopian goal to cater essential nutrients to the world population. All animal products are highly perishable in nature, so their processing and preservation and judicious use are highly important because of safety, energy conservation and improve environmental protection. The use of oldest methods of animal product processing and further processing are unscientific and cumbersome techniques. The modern methods of animal products processing are more scientific employing hygienic slaughter and dressing of poultry and fish followed by chilling, freezing, canning, irradiation etc. Shell eggs are frequently collected, handled, preserved and dispatched to the market in more scientific and attractive manner. Poultry meat and fish are most extensively traded in international markets as frozen form while eggs are in dried powder form.

The demand for processed animal products has increased globally after signing of GATT and WTO agreement. But imposition of Sanitary and Phyto-Sanitary (SPS) measures were the key issues for new pattern of food trade. However, processed animal products are mushrooming up in the major cities in the world including in India and contributing reasonable share in the super markets.

One of the major developments associated with these activities is the emergence of Livestock Products Technology, an important academic discipline mandated by Veterinary Council of India (VCI), ICAR, SAUs, SVUs, CAUs. Apart from these universities, animal product technology related courses are taught in several Deemed Universities and private institutions under UG and PG programmes. Moreover, MOFPI entrusted to give more importance to processing of meat and egg related articles, and for this, Govt. of India has already developed NIFTEM and NMPPB. It has also been observed that ICAR encouraging for publication of good quality text books which will be useful to students and