Commercial Meat Processing.

Meat Industry



Introduction

Meat processing industry is of enormous significance for India's development because of the vital linkages and synergies that it promotes. Meat processing covers a spectrum of products from subcomprising animal sector husbandry and poultry farms, and bulk frozen meat, packaged meat, ready-to-eat processed meat products.





The modern meat industry uses machine vision, robots, and integrated processing lines to enhance speed, efficiency and sanitation. Poultry processing is a complex combination of biology, chemistry, engineering, marketing, and economics. While producing human food is the main goal of poultry processing, related fields include waste management, non-food uses of poultry, and pet/livestock feeds. When considering the global marketplace, poultry refers to any domesticated avian species, and poultry products can range from a slaughtered carcass to a highly refined product such as a frankfurter or nugget.



Economic production through vertical integration, favorable meat characteristics, and product innovations to meet consumer needs have all contributed to the poultry industry's success. However, the safety of poultry products and the use of water in processing are two issues with which the industry is concerned.







Meat processing has always been part of FAO's livestock programmes, not only because of the possibility of fabricating nutrient-rich products for human food, but also owing to the fact that meat processing can be a tool for fully utilizing edible carcass parts and for supplying shelfstable meat products to areas where no cold chain exists. Moreover, small-scale meat processing can also be a source of income for rural populations.



India is endowed with the largest livestock population in the world. Livestock and poultry in Indian tropical and sub tropics play a critical role in agriculture economy by providing milk, meat, eggs etc and provide flexible reserves during period of economic stress and buffer against crop failure. Mutton and Chicken is an important livestock product which in its widest sense includes all those parts of the animals that are used as the food by the man. So, with increase in population there is also an increasing consumer demand for food products that are low in fat, salt and cholesterol at local, national and international levels.



Food manufacturers need to be able to produce meat, poultry and fish products which are considered to be healthy and that can meet the consumer demands. Meat industry, although is a very developing stage in India, is the top food industry in the world. Processed meat products are poised for continuous growth in the country. Poultry is one of the fastest growing segments of the agricultural sector.

The main aim of this book is to provide complete guide on meat, fish and poultry processing. Owing to the wide variety of products and type of processes and treatments (curing, dry curing, fermentation, cooking smoking etc), this products need particular analytical methodologies for proper consumption.



packaging, processing of meat and meat products, microbial and other deteriorative changes in meat and their identification, chemical composition and nutritive value of poultry meat, pre slaughter handling, It examines the nutritional principles behind the drive for reductions in fat, salt and cholesterol in our diet, and illustrates formulations and procedures utilized to produce such products. The reader would get to explore brief discussion regarding the Indian meat industry followed by the next chapter which includes structure, composition and nutritive value of meat tissues, postmortem changes and some meat quality parameters are also added in the preceding chapters. It also discuss about meat cutting and



transport and dressing of poultry, fish products, freezing fish fillets, miscellaneous fish dishes, spreads, salads, loaves fish spreads for appetizers, sandwiches, shellfish and miscellaneous marine products, meat removal and pre freezing treatment, packing and freezing, classes and sizes of fresh and frozen oysters, freezing whole raw lobsters etc. The book contains manufacturing processes of various meat, chicken and fish products in much illustrative manner. Special content on machinery equipment photographs along with supplier details has also been included.



It is anticipated that, it turns out to be a resourceful book for entrepreneurs, technocrats, food technologists and others linked with this industry; as this would be an invaluable reference source for meat, poultry and fish processors, and food industry personnel involved in the development and marketing of new products.



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Chopping Operation when High-Speed Chopper and an Emulsifier are used Chopping Operation using Grinder, Mixer, and an Emulsifier Other Added Materials Stuffing Smoking and Cooking Fast Process using Combination of Glucono Delta Lactone or Sodium Acid Pyrophosphate and Sodium Erythorbate Frankfurter Sausages (Wieners) Chopping Operation using Grinder and Conventional Chopper Chopping Operation when High Speed Chopper is used Chopping Operation when Grinder, Conventional Chopper and Emulsifier are used Chopping Operation when High Speed Chopper and Emulsifier are used Chopping Operation using Grinder, Mixer, and Emulsifier **Added Materials** Stuff **Smoke and Cook**



Fast Process using Combination of Glucono Delta Lactone with or without Sodium Acid Pyro-phosphate and Sodium Erythorbate Oil Spice for Smoked Meat Flavor Ring Bologna using Nonfat Dry Milk Large Bologna using Nonfat Dry Milk Bologna Formulas using Soy Protein High Grade Frankfurter using Nonfat Dry Milk Processing Data Frankfurter using Soy Protein Concentrate Hot Dogs Extended with Textured Vegetable Protein Skinless Frankfurters using Nonfat Dry Milk Skinless Cheesefurters using Nonfat Dry Milk Cooked Salami (Salami Cotto) Cooked Salami Cotto (Perishable) Finest Quality Cooked Salami in 3- or 6-LB Cans Salami Cotto using Nonfat Dry Milk Kosher and Kosher-Style Salami Minced Ham All Meat Smoked Sausage Smoked Link Sausage with $3\hat{A}^{1/2}$ % Cereal and Nonfat Dry Milk Added



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Potted Herring **Fish Pickled in Wine Pickled Haddock Fillets Pickled Salmon Pickled and Spiced Mackerel Fillets Pickled Eels** Canning Frozen-at-Sea Tuna **Canning Fresh Tuna Canning Salmon Canning Mackerel Canning Sardines in Oil Canning California Sardines Canning Herring Canning Shad** Canned Salmon Caviar Canape Spread Base **Canned Fish Chowder** Make a Fish Broth First **Fill Cans Suggested Process**



Canned Norwegian-Style Fish Balls (Fiskeboller) **Suggested Process** Canned Salmon or Tuna Loaf in 12-oz or 3-or 6-Lb Oblong Cans **Canned Fish Cakes Frozen Fish Freezing Minced-Fish Blocks Preparation of Minced Fish Flesh** Preparation of the Frozen Blocks Freezing Ready-to-Heat-and-Eat Fish Sticks Forming Fillet Blocks **Freezing Fillet Blocks Cutting the Fish Sticks** Coating the Sticks Frozen Foods Dipping Batter Mix Frozen Foods Breading Mix Cooking the Sticks Cooling and Packaging the Cooked Sticks Freezing **Freezing Fish Fillets**



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For Manhattan Chowder For New England Chowder **Batch Process** Canned Clam Stew (Hot Pack) Frozen New England Clam Chowder Made from Fresh Clams Made from Canned Clams Packaging Canned Manhattan Clam Chowder For Condensed Canned Chowder Frozen Manhattan Clam Chowder (Batch Process) **Frozen Clam Patties** Crabs **Canning Pacific Crab Meat** Freezing Blue Crab Meat Cooking **Meat Removal** Freezing Soft-Shell Crabs Freezing King Crab Meat

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- Activated Carbon & Activated Charcoal
- Aluminium And Aluminium Extrusion Profiles & Sections,
- Bio-fertilizers And Biotechnology
- Breakfast Snacks And Cereal Food
- O Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling



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- Building Materials And Construction Projects
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- Chemicals (Organic And Inorganic)
- Confectionery, Bakery/Baking And Other Food
- Cereal Processing
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- Cold Storage For Fruits & Vegetables
- Coal & Coal Byproduct



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- Dairy/Milk Processing
- O Disinfectants, Pesticides, Insecticides, Mosquito Repellents,
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- Ferro Alloys Based Projects
- Fertilizers & Biofertilizers
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- Hotel & Hospitability Projects
- Hospital Based Projects
- Herbal Based Projects
- Inks, Stationery And Export Industries



- Infrastructure Projects
- Jute & Jute Based Products
- Leather And Leather Based Projects
- Leisure & Entertainment Based Projects
- Livestock Farming Of Birds & Animals
- Minerals And Minerals
- Maize Processing(Wet Milling) & Maize Based Projects
- Medical Plastics, Disposables Plastic Syringe, Blood Bags
- Organic Farming, Neem Products Etc.



- Paints, Pigments, Varnish & Lacquer
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- Stationary Products
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