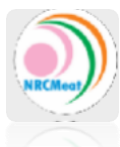

TECHNOLOGIES FOR VALUE ADDED MEAT PRODUCTS

Developed By



**ICAR-NATIONAL MEAT RESEARCH INSTITUTE
HYDERABAD 500092**

PREAMBLE

Processing of meat or further processing is primarily done to add value to meat, provide variety and convenience to the consumers, provide employment, better utilization of low value cuts and by-products from slaughter houses, extend shelf-life, facilitate incorporation of non-meat ingredients, better marketing and distribution, better profit and scope for export. A state of art facility for meat processing and value addition has been established by ICAR-National Meat Research Institute (NMRI), Hyderabad for research, entrepreneurial training and new product development. In addition, NMRI-Agri-business Incubator, a pioneering initiative in the domain of meat processing technology was set up in 2015 at ICAR-NMRI, Hyderabad with support of Indian Council of Agricultural Research, New Delhi to foster the growth of meat processing ventures in our country and augment commercial utilization of viable technologies developed at NMRI.



TECHNOLOGY FOR EMULSION MEAT PRODUCTS



Small scale technologies with low cost machinery and locally available ingredients and culinary practices have great relevance in Indian situation for large scale adoption. Meat emulsion technology is a relevant technology for production of quality meat products utilizing tough meat and by-products from

spent animals. Various emulsion meat products viz, nuggets, sausages, patties, croquettes etc. are prepared from a single emulsion utilizing simple appliances even on cottage scale. Many tested formulations utilizing various locally available ingredients like binders, extenders have been standardized and transferred to commercial production.

TECHNOLOGY FOR RESTRUCTURED MEAT PRODUCTS

Restructured meat products are partially or completely disassembled and then reformed into the same or different form. Processing technologies for protein rich restructured meat blocks, slices, cubes and restructured bites biryani enriched with soya proteins have been developed.

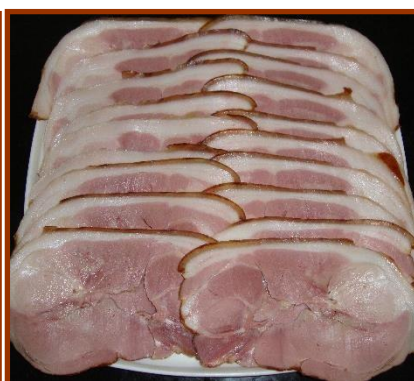


TECHNOLOGY FOR ENROBED MEAT PRODUCTS

Variety of convenience meat based fast foods such as enrobed (coated) meat products are popular by virtue of their versatility and superior sensory properties. Enrobing is the process of making “further processed products” by applying edible coating to the products. It includes two important steps i.e. breading and battering. Enrobing contributes multiple benefits like value addition, improvement of nutritive value and texture profiles as well as reduction of production cost. These improvements are brought about by coating ingredients that act as sealants and also prevent high oil uptake during frying of products. The technology for production of succulent, attractive enrobed meat products utilizing locally available ingredients has been standardized.



TECHNOLOGY FOR CURED AND SMOKED MEAT PRODUCTS



Cured and smoked meat products particularly pork products are very popular in North-East region of India and form a considerable proportion of processed meats. Cured and smoked

chicken legs, chicken breast and mutton ham are developed as variety and value added products. The technology is utilized for commercial production and is important both for minimizing adverse effects of imports and for promoting domestic sector prospects. Suitable packaging technology for preserving quality and extended shelf life was also standardized.

RETORT POUCH TECHNOLOGY FOR SHELF-STABLE MEAT PRODUCTS

Lack of cold chains and frequent power failures are major constraints in preservation, distribution and marketing of highly perishable meat products. Technology was developed to prepare shelf-stable, ready to eat (RTE) Indian traditional meat varieties such as curries, keema and soup. The products are thermally processed in transparent pouches and have a shelf-life of six months to one year at room temperature.



IMPACT

- **Entrepreneurship training programme and skill development programme on “Processing of value added meat products”**

Trainings	Participants	No. of training programme	No. of trainees
Entrepreneurship training and skill development programme	Small and medium scale entrepreneurs, progressive farmers, veterinarians	58	757

- **Consultancy**

Contract research projects; consultancy for establishment of meat processing plant/slaughter house



- **Technology transfer; MoU with technical know-how**

ICAR-NRC on Meat MoU with entrepreneurs

- Tasty Fresh Chicken, Mumbai
- M/s Kaavo Meat by Cool chef, Thadani house, Mumbai
- M/s Pro Chicken, Hyderabad
- M/s. Shri Ramalingeshwara Agro Foods Pvt Ltd., Hyderabad
- Maisa Foods, Hyderabad
- Meenakshi Foods, Hyderabad
- PrARAS Biosciences, Bengaluru
- Srinivasa Hatcheries, Bengaluru
- Kancor Ingredients Ltd, Kerala



- **Promotion and popularization of value added meat products**



ICAR-NRCM MEAT PRODUCTS

 Ingredients: Chicken meat, binders/extenders, spice and condiments, vegetable oil, water, salt, polyphosphates and permitted additives. Nutritional facts (per 100 gm serving) Energy: 175 kcal Protein: 15 gm Total fat: 10 gm Total carbohydrates: 5 gm Keep frozen till use Instruction for use: Thaw in refrigerator / microwave. Shallow fry to golden brown colour before serving. Net weight : Max. retail price : Mfg. date : Best before : 3 months from the date of packing Issai Lic. No. 20113032000217	Enrobed Chicken  A Quality Product of ICAR-National Research Centre on Meat (ISO 9001:2008 Certified Organization) Chengicherla, Boduppal, Hyderabad-500092 Tel. Nos.040-29801672, Fax No. 040-29804259 Email: nrcmeat_director@yahoo.co.in	 Chicken Bites Ingredients: Chicken meat, binders/extenders, condiments, water, salt, polyphosphates and permitted additives. Nutritional facts (per 100g serving) Energy: 110 kcal Protein: 18 g Total fat: 3 g Total carbohydrates: 2 g Keep frozen till use Instruction for use: Thaw in refrigerator / microwave. Shallow fry to golden brown colour before serving. Net weight : Max. retail price : Mfg. date : Best before : 3 months from the date of packing Issai Lic. No. 20113032000217	Chicken Bites  A Quality Product of ICAR-National Research Centre on Meat (ISO 9001:2008 Certified Organization) Chengicherla, Boduppal, Hyderabad-500092 Tel. Nos.040-29801672, Fax No. 040-29804259 Email: nrcmeat_director@yahoo.co.in
 Ingredients: Chicken meat, binders/extenders, spice and condiments, vegetable oil, water, salt, polyphosphates and permitted additives. Nutritional facts (per 100 g serving) Energy: 150 kcal Protein: 16 g Total fat: 8 g Total carbohydrates: 2 g Keep frozen till use Instruction for use: Thaw in refrigerator / microwave. Shallow fry to golden brown colour before serving. Net weight : Max. retail price : Mfg. date : Best before : 3 months from the date of packing Issai Lic. No. 20113032000217	Chicken Nuggets  A Quality Product of ICAR-National Research Centre on Meat (ISO 9001:2008 Certified Organization) Chengicherla, Boduppal, Hyderabad-500092 Tel. Nos.040-29801672, Fax No. 040-29804259 Email: nrcmeat_director@yahoo.co.in	 Ingredients: Chicken meat, binders/extenders, spice and condiments, vegetable oil, water, salt, polyphosphates and permitted additives. Nutritional facts (for 100 gm serving) Energy: 150 kcal Protein: 18 gm Total fat: 7 gm Total carbohydrates: 2 gm Instruction for use: Thaw in refrigerator / microwave. Shallow fry to golden brown colour before serving. Net weight : Max. retail price : Mfg. date : Best before : 3 months from the date of packing Issai Lic. No. 20113032000217	Chicken Sausage  A Quality Product of ICAR-National Research Centre on Meat (ISO 9001:2008 Certified Organization) Chengicherla, Boduppal, Hyderabad-500092 Tel. Nos.040-29801672, Fax No. 040-29804259 Email: nrcmeat_director@yahoo.co.in

VALUE ADDED MEAT PRODUCTS



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