



to some gulf countries. Ready to cook chicken without giblets are used for this preparation. Ready to cook chicken are marinated in a gravy of spices and curd and cooked in a preheated (180-190°C) earthen oven called Tandoor. Considering the large marketing potential, some studies have been made to standardise processing and keeping quality (Puttara-jappa et al., 1971, Keshri, 1984).

'Rapeka' is a dried meat product made from cut up carcasses. It is consumed by the tribes of the eastern hill region of the country. The different portion of carcass are dried over the usual cooking oven. Carcass parts are arranged on the racks fitted over the cooking oven and during cooking of food it gradually dries. With the reduction of moisture the portions are shifted from lower racks to higher one to adjust the requirement of heat. Usually such meat are cooked along with tender bamboo shoots. It is said that bamboo shoots have tenderising effect and create a special type of flavour in rapeka.

'Hunter' is a dry cured type of meat, prepared from round and thigh muscles of cattle and buffalo. It is usually processed in winter. Big chunk of meat is rubbed with mixture of salt, sodium nitrate, spices and fresh lemon juices. They are spiked with multineedle fork and kept in a earthen pale for 3 days. After third day, again same mixture and lime juice are rubbed over the meat and allowed to be cured for 20-30 days. Afterwards they are washed and cut into slices. Usually it is eaten raw.

#### Products made out of chunks:

Meat curries, Biryani, Qorma, Dopyaza, Roganjosh, Nihari, Mutton yakhani, Pickles etc., are processed out of meat chunks with or without bones. Meat curries are our most popular meat preparations. Meat curries are prepared out of chevon, mutton, pork and buffalo meat. Depending on the meat used, the spices for curry are selected. Indian staple foods, such as rice and flat bread (Chapati) need a large quantity of carrier and meat curries fit well in this situation. Many recipes are available for meat curries.

Biryani is another popular product and usually made from mutton or goat meat with rice. Common terminology in market is mutton biryani. Mutton biryani have characteristic flavour and taste. The demand for mutton biryani is increasing day by day in civilian as well as in defence. Mutton biryani is marketed in canned form also. In order to ensure the quality and wholesomeness of the finished product, various physical, chemical, microbiological and hygienic requirements have been specified by Bureau of Indian Standards - IS- 13165: 1991.

Meat Qorma is another popular products available throughout the country and many kinds of Qormas are prepared using different spice combinations with meat chunks.

Some meat products are speciality of a particular region or town viz. 'Nihari' in Delhi, Lucknow and other old town of northern India. Large meat chunks are cooked along with spices for a very long time on slow heat, usually over night. Nihari is a breakfast item and considered very tasty and healthy food. Usually it is consumed along with "Kulcha" a special light type bread used for morning breakfast.

Meat pickles are popular traditional meat products in northern part of the country and have a long shelf life without refrigeration. Meat pickles are used as adjuncts with rice, paratha, chapati, bread and several other snacks. Pickles are prepared from pork and chevon. Besides other spices, vinegar and mustard are used.

are the main ingredients of pickles. Padda and Sharma (1982) and Padda et al. (1985) standardised the recipes for meat and pork pickles and studied its keeping quality. A reduced moisture content along with low pH (3.80-4.90) have been considered to be major contributing factors to the shelf life of the meat pickles. Chicken Gizzard pickles is another product in this group.

### Comminuted Meat Products

As a matter of fact one can find a large list of delicious Indian food preparations where comminuted meat is a major or minor ingredient. Some of the comminuted meat preparations such as keema, kofta, goshtaba, Rista etc., are quite popular.

In loose term any minced meat is called keema and keema as such are cooked with various blends of spices and green curry stuff. However, addition of keema into vegetable preparations such as green peas, shredded cabbage and spinach gives delicious taste.

Kofta are made in various forms but most common shape is like meat ball and depending on the meat used it is named as pork kofta, mutton kofta etc. Some time boiled egg, dry fruits and other type of minced vegetables are stuffed in side the kofta ball and they are called Nargishi kofta, shahi kofta, surmai kofta etc. Padda et al. (1988, 1989) have reported various recipes for goat meat kofta (Meat balls).

Among indigenous meat products, kababs are well known and emerging as one of the main entries in the fast food chain in India. There are many kinds of kababs viz. sheek kabab, shami kabab, Gilabet ka kabab etc. Traditionally the kababs are prepared from red meats. Powder or paste of chick gram is used as extenders in kofta along with various profiles of spices. Gilabet ka kabab is made exclusively from buffalo meat and is very popular in the old area of Lucknow. Salahuddin et al. (1988) have reported kababs from the mixture of mutton and chicken.

Goshtaba and Rista are served routinely as very popular dishes in Kashmiri "wazawan". The term "wazawan" represents an entire range of several popular and delicious processed meat products, prepared especially for feasts by "wazaz-cook" in Kashmir. These include Goshtaba, Rista, Nate-yakkhi, Dopiyaza, Rogan josh, Dhani, Rogan josh, Qorma, Badam Qorma, Tabaq Maz, Aab Gosh etc. (Dar. 1977). The word Gosh is derived from Gosht (meat) and Aab (water, aqueous) means meat having water. Goshtaba emulsion is prepared by constant pounding of prerigor (hot boned) mutton alongwith mutton fat using a wooden hammer on a smooth flat stone. Emulsions thus obtained are manually shaped into spherical meat ball and cooked in a gravy called "Yakhni" consisting of curd, water, spices and condiments. Rista is also prepared like Goshtaba but cooking is done in gravy of spices and condiments. Recently Samoon and Sharma (1991) have reported that Goshtaba can be prepared using chilled meat and employing mincing machine provided sodium tripolyphosphates and sodium tripolyphosphates are added during mincing of the meat. Goshtaba and Rista are served with rice.

Some indigenous meat based snacks are quite popular among the India consumers as convenience products in fast food chain. Examples of such products are Meat Pakora, meat samosa, meat tikkas etc. Samoon et al. (1980) suggested that goat meat tikka with desirable texture is feasible after the incorporation of extenders in the form of shredded potato (10%) or shredded potato in combination with bread crumbs (5%) and rice flour (5%).

## Conclusion:

Indigenous meat products are the major meat foods consumed by the non-vegetarian population of the country. The traditional processing technologies are operating in unorganised units. Some organised units have started production of indigenous meat products on commercial scale along with other meat based convenience foods known in the developed parts of the world. However, the range of meat products available in the western countries may not be acceptable in their totality in India. There is need to develop or modify the products suitable to local consumer preference with proper blend of indigenous extenders and spices. Diversification of the processed meat industry in this direction and development of appropriate technologies for the production of indigenous products would add variety, convenience, nutrition and quality to the range of products available in the country.

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