

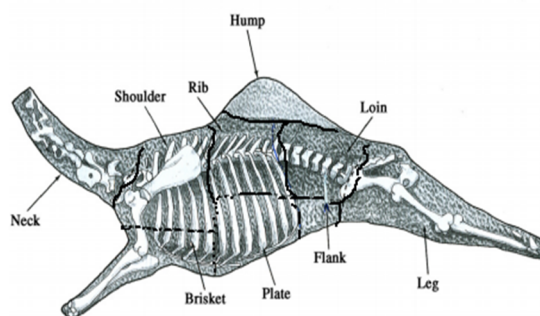
CAMEL AS MEAT ANIMALS

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Camel is a special animal, but its services to mankind are more than estimation, especially regarding its adaptability and thriving in the harsh climate of the deserts. The most populous camel species in the world are dromedaries (one humped). So, this article is written about the one humped camel (from now camel). Globally, the camels are most populous in the East Africa (Horn of Africa) and Middle east. There are about 1 million camels in Pakistan. The meat of the camel is the bye product as the male animals are preferably kept as baggage animal while the female camel also serves as dairy purpose. There are about 0.17 million camels are slaughtered annually in the world. In Pakistan, annually about 24000 camels are slaughtered.

The camel meat quality varies with the feeding, breeds, age and its methods of the processing. However, the camel produces high quality food with low cost. There is established market of the camel meat in the Sudan. Usually the camel meat is the products of spent animal in Pakistan. In Pakistan there are about twenty breeds of the camel being reported by some livestock scientist. However due to scanty research, the breed characters are not well documented.

On average, the birth weight of different camel breeds varies between 30-45 kg in Pakistan. While average mature weight of different local breeds varies between 400-800 kg. These animals are slaughtered in special way (incision at three different spot on neck). The best age regarding the good quality meat is 1-3 year for slaughtering. The dressing percentage in local breeds varies from 45 to 55%. Male camel has proportionally more carcass yield as compare to she camel that has more fat content. 34% of the carcass is from the forequarter while 25% from the hindquarter. There are not established cut of camel meat in Pakistan. However, the famous cuts in the Arabs are the; leg, flank, loin, hump, ribs, shoulder, brisket, plate and neck. The loin and ribs are proportionally the richest muscles (*Longissimus dorsi region*) containing cuts.



General position of the cuts

The quality characteristics of camel are not different from the beef. Commonly, it is said that the camel meat is tough, coarse and watery. The color of the meat varies from raspberry red to dark brown. Its taste is sweetish due to high glycogen content in the muscles. The fat of the camel is white in colour. The toughness increases while the palatability decreases with increase in the age of the animal. Optimum age is 1-3 years. Ultimate pH is ranging 5.7 to 6; it depends on the amount of glycogen and lactic acid.

Nutritionally, concentration of amino acids and inorganic minerals of camel meat are higher with less fat and more moisture content. These are very important attribute that make the meat special. Camel meat has all the essential amino acids except the lysine is low as compare to beef, lamb and buffalo meat. The edible meat tissue from camel contains less fat especially less cholesterol than the beef and lamb. Mono saturated fatty acids meat counts for almost 1/3 of the total fatty acids. The oleic acid is most dominant in concentration followed by palmitoleic acid. Out of ten poly unsaturated fatty acid (PUFA), linoleic acid is the principle PUFA. The PUFA are 18.6% that are more than beef but less than buffalo.

Sex of animal is important factor in determining the carcass yield in the camel. The total meat weight was higher from males as compare to female. The meat of camel has 71% moisture, 21.4% protein, 4.4% fat and 1.1% ash (almost same composition as beef). The camel meat like other red meat has higher potassium followed by phosphorous, sodium, magnesium and calcium. The tough structure of some of the camel meat cuts are due to high concentration of the calcium. The processing methods improve the tenderness, juiciness and palatability of the meat. The processing method used for camels are same as used for the beef. This animal is very important part of the pastoral life. The nomads also believe that the meat of animal is remedy for many diseases. This animal has special demand at the occasion of the Eid-ul-adha. Commercial meat production is the very important topic of research and would be the alternate option in the future for our country where the land and feed resources are not optimum for livestock and are decreasing day by day.