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14. ADVANTAGES OF POULTRY MEAT FOR CONSUMERS

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Convenience and the ability to purchase products at a reasonable price are very important factors influencing consumer purchasing decisions. Currently, poultry is raised all over the world and is readily available in most places. Price is definitely

competitive compared to other meats, as raising one kg of poultry is less expensive than beef, and pork. This is due to a better feed conversion rate, significantly shorter growing period, etc. Poultry meat also has no religious limitations and is acceptable in all societies.

Poultry meat, like other meats, is a good source of proteins (regular and essential amino acids), vitamins, and fat. Fat composition is unique as poultry has more unsaturated fatty acids compared to red meat, therefore it is considered by many consumers as a healthier meat source. It also has less fat in certain cuts. For example, skinless chicken breast fillet has only 2.5% fat and no marbling. Most fat is present under the skin (subcutaneous fat), meaning that skinless fillet has very little fat; mainly polyunsaturated fatty acids present in cell membranes. Skinless broiler drum meat typically has 6% fat and with skin about 10% fat [1]. Poultry breast meat is a poor source of iron (about 0.37 mg/100 g raw or 0.49 mg/100 g cooked), and that can be seen by the very light color of the meat (low myoglobin content). However, raw duck breast meat has about 4.51 mg/100 g myoglobin and appears dark red [66]. The difference is because of the high concentration of red muscle fibers, designed for prolonged flights in these migratory-type birds.

The approximate caloric value of 100 g portions of cooked: Skinless chicken breast fillet = 158 kcal; Skin on chicken breast fillet = 197 kcal; Skinless chicken thigh meat = 179 kcal; Skin on chicken thigh meat = 226 kcal.

For comparison, the approximate caloric value of 100 g portions of cooked (See fdc.nal.usda.gov web site): Beef leg meat = 201 kcal; Pork leg meat = 211 kcal; Beef brisket = 244 kcal; Pork chop = 255 kcal.

In terms of meat further processing and meat product quality, one should remember that the higher proportion of unsaturated fat in poultry meat results in a lower melting point. This must be taken into account when preparing emulsified meat products such as chicken/turkey frankfurters and bologna. In those cases, chopping end-point temperature must be kept low (8 °C) than when red meat products are made (12–15 °C) to prevent fat separation during the later cooking operation.

Overall, poultry products are typically perceived as lean, low-fat foods that are

healthier than other red meat products. An example is turkey bacon which commonly has about half the fat and salt content of pork bacon. This is because turkey bacon is prepared from finely chopped white breast meat and layers of finely chopped (or intact) dark leg meat. This is again an example of how poultry meat can be marketed. It is interesting to note that in this particular case, using the name turkey bacon caused initial lawsuits from the pork industry, trying to block the poultry industry from using such a name.

Today, further strides are being made in improving the healthiness of processed poultry products; in particular, offering products with reduced salt, nitrites, and fat [2]. For example, the sodium concentration in chicken nuggets (i.e., sodium chloride required for extracting the salt-soluble proteins from the meat to facilitate binding/gelation during cooking) can be reduced to some extent by partially replacing with potassium/calcium chloride without affecting consumer acceptance.

Literature

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2. Teixeira, A.; Rodrigues, S. Consumer perceptions towards healthier meat products. *Curr. Opin. Food Sci.* 2021, 38, 147–154.