



POULTRY MEAT AND ITS PROCESSED PRODUCTS

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ABSTRACT

The article under discussion discusses poultry meat and its processed products. The authors of the article consider that in recent decades there has been an increase in the importance of poultry meat and its products in human nutrition due to its high consumption properties. Poultry farming in Uzbekistan has always played one of the most important roles in supplying the population with high-quality products. The accumulated data on the nutritional and biological value of poultry meat testify to its compliance with the medical and biological requirements for raw materials for the production of mass food products, including children's.

KEYWORDS

Poultry meat, competitiveness, industry, profitability, acids, minerals, extractive substances, vitamins, global, production.

INTRODUCTION

In the structure of the human diet, meat and meat products occupy a special place. Traditionally this group is considered as a source of high-quality complete protein, fat, minerals and extractive substances, vitamins, the consumption of which is necessary for normal functioning of the body.

Main part

According to researchers, global poultry meat production has more than tripled over the past two decades, and consumption has increased from 12.0 to 25.1 kg, with a recommended 30 kg. Poultry meat, therefore, is the most important component in the human diet, for a number of reasons, but above all for the biological characteristics of the poultry organism that make it possible to obtain a sufficient amount of production in a relatively short period of time to ensure the profitability of production.

Poultry meat has distinctive characteristics. Morphologically, meat is a complex tissue complex that includes muscle tissue along with connective tissue formations, fat and bone. The quantitative ratio of the main tissues that make up the meat depends on the breed, sex, age, and fatness of the bird [9]. The content of edible parts depends on the type of poultry and the fatness category: the higher the category, the greater the meat yield [10].

The nutritional value of poultry meat is primarily due to the presence of muscle and fatty tissue. The main and most nutritionally valuable part of meat is muscle tissue. Poultry muscle tissue is rather dense, fine-fiber, less interbedded connective tissue compared with the muscle tissue of

slaughtered animals. Muscle content of the carcass varies from 40 to 70%. The broilers of the best broiler breeds have 94-9% of muscle tissue. The pectoral muscles make up 94-98%, while the leg muscles make up 92-97%. The remaining components come from connective and fatty tissue. The bones of a bird's skeleton of poultry are thin and light compared to the bones of slaughtered animals, but in total, bone tissue accounts for 14% of the live weight [10].

The high consumer properties of poultry meat are primarily due to its high chemical composition, which has been proven by numerous studies over a period of almost thirty years of research. The chemical composition of poultry meat depends on the same factors as the composition of meat of slaughtered animals: age, fatness, breed, fattening, part of the carcass, the type of poultry. The good digestibility (96%) of poultry meat is due to its chemical composition [11].

It has been established that, compared to the meat of the main domestic animals – lamb and beef, for example, chicken meat contains somewhat more protein, with a mass fraction of 22-25%. Chicken meat has a utilization factor of over 71%, whereas lamb and beef meat, which has a mass fraction of 13-15% and 18-20%, has a utilization factor of 60-70% and 57.4%-69.4% respectively. It should be emphasized that chicken meat contains 92% of amino acids essential for humans; beef - 88.73 and 72.00 % respectively [12]. As stressed by A. L. Shtele [13], it is poultry meat that provides a complete balance of protein in the body for the bulk of the population of Eastern European countries.

Poultry meat proteins have almost no collagen and elastin, which positively affects the digestibility of protein and meat in general. In terms of amino acid composition, poultry meat proteins are of high value, containing all essential amino acids, balanced in optimal proportions.

The poultry meat (white and dark) has a high content of growth-promoting amino acids tryptophan, lysine, arginine [3,4]. The content of amino acids in poultry meat is given in table 1.

Table 1. Amino acid content in poultry meat, mg per 100 g of edible part of carcass poultry (using several poultry species as an example)

<i>Amino acids meat</i>	<i>Broiler chicken</i>	<i>Goose meat</i>	<i>Laying hens meat</i>
Essentials:			
valine	818	907	899
isoleucine	621	817	828
leucine	1260	1 532	1 824
lysine	1 530	1 577	1 699
methionine	447	474	574
threonine	783	825	951
tryptophan	283	280	330
phenylalanine	649	779	896
Substitutable:			
alanine	1 486	1 241	1 171
arginine	1 104	1 400	1 362
asparagic acid	1 531	1 680	1 863
histidine	412	447	379
glycine	1 082	1 314	1 587
glutamic acid	2 668	2 928	3 682
proline	790	1 000	948
serine	787	817	948
tyrosine	597	642	749
cystine	180	191	208

However, the nutritional value of poultry meat is not limited only to high protein, it is also due to the amount of fat and qualitative composition.

Chicken meat contains less fat than duck and goose meat. The fat is rather firm and has a low melting point (chicken fat - 23-38 °C, turkey fat - 31-35 °C, duck fat - 31-38 °C). White meat (chickens) has less fat than in dark

meat (in ducks). Fat is easy to digest because it is fusible, and when roasting poultry, it is evenly distributed throughout the muscle tissue. Chicken fat has a high iodine number (64-90); acid number is 0.6. Fatty acids composition poultry fat is close to olive oil [7].

White meat of chickens and turkeys, quail meat is characterized by low fat content, so it is more often used in children's and dietary nutrition. It is desirable that the fat content in the muscle tissue does not exceed 3.5-4%. Unlike other farm animals, poultry meat lipids are rich in essential fatty acids for humans such as linoleic and arachidonic acids, which represent 2% of the weight of all fats which contributes to the prevention of cardiovascular diseases (ischemia, myocardial infarction, stroke, hypertension), supports normal metabolism and increases immunity [2]. There are more polyunsaturated fatty acids in the lipids of chicken meat than in beef and lamb [1].

In addition, studies show that glutamic acid is particularly abundant in poultry meat, which plays an active role in liberating the body from non utilizable breakdown products of dietary protein, especially ammonia. The specific flavor and taste of poultry meat is due to the presence of glutamic acid. White meat contains more nitrogenous extractive substances, therefore the consumption of poultry meat broth promotes increased secretion of digestive juices. In this respect, the meat of adult poultry is more valuable [16].

Poultry meat is a dietary, easily digestible product with high amino acid content (compared to livestock meat). Its high digestibility and balance of amino acids easily eliminates protein imbalances in children, people engaged in heavy physical labor and athletes. Meat of chickens is also useful for elderly people with retarded tissue repair processes, and its fat content is less than 10%. Cholesterol content is the lowest in white meat, second only to fish. Lean chicken meat that is used in dietetic diets in cases of gastrointestinal diseases, diabetes, obesity, as well as for the prevention and treatment of cardiovascular diseases; it is low-calorie, it does not overload the liver and kidney excretory

system, except for systematic overconsumption of animal protein. In addition, it contains a large amount of iron, sulfur, phosphorus, selenium, iodine, calcium, magnesium, copper, etc. in an easily accessible form, so it is recommended in the diet of young children, for example, for the prevention of iron deficiency anemia.

In terms of inorganic mineral content, poultry meat is not inferior to mammalian meat, and sometimes surpasses it. For example, chicken meat contains three times more iron and is somewhat richer in phosphorus and sulfur than beef. Poultry meat contains most of the known minerals, but calcium, sodium, phosphorus, iodine, and cobalt predominate.

There are the following vitamins in poultry meat (in mg per 100 g): vitamin A (up to 0.07), vitamin E (0.20), vitamin C (1.8), B1, B2, B12, pantothenic acid (0.76), choline, biotin (10.0), etc. The exchange of vitamins in the poultry organism is very labile and depends on many factors - age, productivity, keeping and feeding conditions.

Many micronutrients, including phosphorus, manganese, zinc, etc., as well as the B and PP vitamins characteristic of meat enter the body with poultry meat [18]. At the same time micronutrients contained in poultry meat are in the most accessible form for the human body. In this regard, poultry meat is widely used in the diets of children of different age groups and in therapeutic and preventive nutrition.

CONCLUSION

Chicken meat, therefore, based on the chemical composition, can be attributed to dietary foods. So, poultry meat has high taste qualities, which is associated with its physical properties (tenderness and juiciness), morphological features of muscle tissue, which contains a small amount of connective tissue.

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