THE USE OF MEAT OSTRICH AS A RAW MATERIAL FOR SPECIALTY PRODUCTS

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Abstract. This article examines the use of ostrich meat as the basis for the production of meat products specialized direction. The results of study of the chemical, amino acid, fatty acid and vitamin composition of ostrich meat. Suggested dietary supplements for people with high physical activity.

Keywords: specialized products, ostrich meat, biologically active additives

Specialized food products - are products of natural or synthetic origin with a high biological activity, have a pleasant taste and a pronounced healing effect for a person. The necessity special foods associated with rising food shortages, which affects all countries of the world [1].

In a separate category of foods can be distinguished specialty products for people practicing sports. Currently, there is a need to develop new types of products contain high protein and full of essential fatty acids enriched in biologically active components that promote adaptation to additional physical activity.

The use of meat as a raw material for specialty products based on the fact that the composition as the meat and other raw materials of animal origin originally includes many bioactive substances, such as linoleic acid, carnosine, anserine, glutathione, taurine and creatine, which are not only

involved in the formation of taste and flavor of the meat products, but, as is known, are biologically active substances [2].

Currently, the assortment of meat processing plants is insufficient specialized meat products adequate physiological needs of the body of people engaged in physical culture and sports. Deficit of high quality limited edition of the required volume of specialty products, which leads to the relevance of the development and expansion of its product range by using non-traditional raw materials of animal origin. Among such raw materials should be noted meat of African ostrich [3, 4].

Experts estimate the annual productivity of the ostrich, on average, five times higher than the productivity of beef cattle, so the ostrich in the long term can supply a significant amount of meat that can be an alternative to traditional types of raw materials in the first place, veal and beef. In this regard, it has been tasked to evaluate the use of ostrich meat for the production of specialized food products.

The study of the chemical composition of different types of meat carried out in the infrared analyzer FoodScan Lab (FOSS). Determination of cholesterol carried by highly specific enzyme in the laboratory lipid, mineral elements - and by atomic absorption spectrophotometric methods.

Important conditions for obtaining high-quality meat food products for people engaged in physical culture and sports, are directional selection of raw meat (table 1, 2).

Typeofrawmaterials		Conte	ent, %	Cholesterol mg / 100 g of meat	Energyvaluable, kcal / kJ	
	Moisture	Protein	Fat	Ash		
Ostrichmeat	75,4	22,5	0,9	1,1	43	98/411
Meatbroilerchickens	75,3	20,6	2,6	0,9	60	106/444
Turkey	74,1	21,6	2,1	1,1	70	110/461
Veal	77,5	20,4	0,9	1,1	80	90/377
Beef	73,7	21,0	4,2	1,0	70	121/507
Pork	54,2	17,0	27,8	1,0	60	318/1332

Table 1. Chemical composition of different types of meat

Table 2. Fatty acid composition of the species of meat

Fatty acid	Cont	Mature human				
	Ostrich	Meat	Meat of	Turkey	Beef	milk (reference)
	meat	broiler	rabbit			
		chickens				
Linoleic	10,45	16,33	21,52	28,10	2,50	10,85
Linolenic	0,48	1,18	2,88	1,40	0,87	0,62
Arachidonic	2,34	0,49	0,32	1,90	0,13	0,95
Σ Saturated fatty acid	46,41	32,53	38,72	34,60	44,5	41,78
Σ Monounsaturated fatty	39,81	50,91	34,88	34,40	46,4	43,03
acid						
Σ Poliunsaturated fatty acid	13,77	18,39	24,72	31,40	3,5	12,42

From this table it is clear that ostrich meat protein content is not inferior to traditional kinds of raw materials. Significant interest in the content of ostrich meat cholesterol. A number of scientific publications marked a low content of sterol of animal origin - from 30,4 to 37,8 mg / 100 g (according to other sources - from 49 to 65 mg / 100g of meat) [4].

The linoleic acid content in meat ostrich approaching etalon. According to the content of arachidonic acid is very important for a person, ostrich meat is superior to the etalon several times. Arachidonic acid is scarce for athletes because high demand for it as compared with the rate of consumption.

For a more complete characterization of the biological value of different kinds of meat studied the content of water-soluble vitamins and mineral elements (Table 3).

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Table 3. Fatty acid composition of the species of meat

	Conte	Mature				
Fatty acid	Ostrich	Meat broiler	Meat of	Turkey	Beef	human milk
	meat	chickens	rabbit			(reference)
Linoleic	10,45	16,33	21,52	28,10	2,50	10,85
Linolenic	0,48	1,18	2,88	1,40	0,87	0,62
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Thus, the use of an ostrich meat with addition complex biologically active substances will create a meat product, able to provide the body's need of essential ingredients when subjected to increased physical activity.

ЛИТЕРАТУРА

- 1. Кузьмичев В.Ю. Качество мяса африканского страуса / В.Ю. Кузьмичев, В.С. Колодязная // Мясная индустрия. 2008. № 11. С. 20–24.
- 2. . Сарбатова Н.Ю. Страус это не только ценное мясо.../ Н.Ю. Сарбатова, О.В. Сычева // Наука и Мир. 2015. № 3 (19). Т. 2. —С. 145—147.
- 3. Фролов В.Ю. Повышение эффективности производства продукции страусоводства в условиях малых форм хозяйствования /Фролов В.Ю., Сычёва О.В., Сарбатова Н.Ю. // Эффективное животноводство.- 2015. -№ 8 (117). -С. 44-45.
- 4. Сарбатова Н.Ю. Теоретическое обоснование разработки специализированного мясного продукта на основе мяса страуса / Сарбатова Н.Ю. , Р.С. Омаров, С.А. Измайлова, О.В Сычева // Мясные технологии. 2015. -№ 5.- С.- 48-51.

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