

QUALITY CONTROL AND BIOLOGICAL SAFETY OF SAUSAGES

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Abstract: *The article describes the quality control and bio-security of sausages. Now the production of sausages increased and their range is much greater. Unfortunately it's possible to buy a low-quality product. Sausages must be of good quality, produced from the meat of healthy animals and tested for veterinary-sanitary service.*

Key words: *biological control, quality, product, sausages, manufacturer, falsification, microorganisms, veterinary sanitary service.*

КОНТРОЛЬ КАЧЕСТВА И БИОЛОГИЧЕСКАЯ БЕЗОПАСНОСТЬ КОЛБАСНЫХ ИЗДЕЛИЙ

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Аннотация: *В статье описывается контроль качества и биологическая безопасность колбасных изделий. В наше время производство колбас, сосисок увеличивается, и ассортимент становится значительно больше. К сожалению, все больше шансов приобрести некачественный продукт. Колбасы должны быть доброкачественными, произведенными из мяса здоровых животных и проверенными ветеринарно-санитарной службой.*

Ключевые слова: *биологический контроль, качество, продукт, колбаса, производитель, фальсификация, микроорганизмы, ветеринарно-санитарная служба.*

Safe and stable products can evidently be produced only from ingredients and additives of high hygienic quality. Sausages are a favorite product of many people. This delicious, nutritious meat product does not require time and effort to prepare, therefore, occupies a large proportion of the diet of many consumers [3].

People have the right to rely on their quality and safety buying in stores sausages. Sausages must be of good quality, produced from the meat of healthy animals and tested for veterinary-sanitary service [1].

Sausages- meat products, cooked minced meat with added fat, salt, spices and other ingredients, in shell or not

Nowadays, the production of sausages increased, and the range is much greater. Sausages play a huge role in human nutrition, based on this, the consumers more likely to buy a defective product. In the production of sausages, mince falls in microorganisms [4].

The degree of initial microbial contamination of sausage meat depends on many factors: raw material quality, sanitary and hygienic conditions of production, observance of technological modes and conditions of transportation and storage.

The results of inspections of Rospotrebnadzor showed that more than half of sausage products presented in commercial network are of poor quality. The manufacturer often falsificare sausage products, meat replacing other components [5].

For example, food stabilizer carrageenan can add in sausages, which holds in the sausage moisture. The presence of carrageenan in sausage products accumulates high amounts of water breed bacteria, including dangerous [2].

In this regard, it is important to systematically check the quality of meat products, to protect people. Therefore, the aim is to assess the quality of meat products for the sanitary-microbiological indicators [6].

Evaluation criterias of the quality and safety of meat products, defined normative document (Technical regulations of the customs Union TR TC 021/2011. "On safety of food products") were such indicators as the number of mesophilic aerobic and facultative anaerobic .microorganisms (QMAFAnM), the presence of intestinal sticks (coliforms) bacteria.

The objects of study served sausages, purchased in the retail network of Krasnoyarsk. Seven type's sausages were analyzed:

1. «Doctor»
2. «The moor»
3. «Dymov»
4. «Ordinary»
5. «Home»
6. «Posadskaya»
7. «Moscow»

The generally accepted methods approved by the normative documents were used. The work was carried out in the laboratory of Microbiology of the Department of epizootology, Microbiology, Parasitological, Institute of applied biotechnology and veterinary medicine.

The number of mesophilic aerobic and facultative anaerobic microorganisms is the indicator of overall contamination of the products. High abundance of this group of microorganisms may be due to the use of substandard materials, insufficient thermal processing of food products, unsanitary production conditions, improper transportation and storage.

Analysis of the results showed that of seven samples, cooked sausage «Moscow», does not meet the regulatory requirements. The number of investigated groups of microorganisms exceeded the norm. (table. 1)

Table 1 – The presence of QMAFAnM in sausages

	The name of the sausages	norm at ND(CFU/g, not more)	result

1	"Doktorskaya".	1×10 ³	7,5×10 ²
2	"themoor"		2,1×10 ²
3	"Dymov"		2×10 ²
4	"Ordinary"		1,9×10 ²
5	"Home"		1,3×10 ²
6	«Posadskaya» boiled		2,8×10 ²
7	"Moscow"		1,2×10 ³

Indicator QMAFAnM (TMC) determines the quality, freshness and food safety. The high content of QMAFAnM in food can cause food poisoning with symptoms of diarrhea, gastroenteritis. The most susceptible to the diseases of children elderly and handicapped people.

The purpose of the indication of bacteria of Escherichia coli group is verification of heat treatment of sausages. The presence of coliforms can also indicate improper storage of finished products.

Analysis of the results other showed that products meet the regulatory requirements. Therefore there was stored in the right conditions and passed sufficient heat treatment. (table. 2)

Table 2 – The presence of coliforms in sausages

	The name of the sausage	Product weight which is not allowed CGB	result
1	"Doktorskaya"	1,0	not detected
2	"themoor"		not detected
3	"Dymov"		not detected
4	"Ordinary", "Generous Siberia"		not detected
5	"Home", «Generous Siberia»		not detected
6	«Posadskaya» boiled		not detected
7	"Moscow"		not detected

Sausages are a favorite product of many people. Therefore, it is important to regularly check the quality of sausages to protect people. The manufacturer of sausage often falsifies products. Sausages should be of high quality and produced from meat of healthy animals.

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