

18. Intensity of fatty oxidative processes fractions of blood sausages

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Introduction. Iron deficiency is one of the most common pathologies of modern humanity. According to the WHO, iron deficiency is observed in more than 1.5 billion people, including about 500 million people with iron deficiency anemia [1].

Materials and methods. Iron deficiency in the human body causes a violation of vital functions and leads to various diseases, increasing the risk of mortality. In the treatment of iron deficiency anemia, iron salts are used primarily, which can cause a number of side effects that impair the body's systems. An alternative to drug prevention and treatment of iron deficiency anemia can be offered foods with preventive action with high content of organic iron.

Results. The fat in the stuffing of blood sausages has a high biological value due to the significant mass fraction of unsaturated fatty acids. About 80% of all fatty acids in chicken fat contained in protein-fat unit are oleic, linoleic and palmitic acids. The total proportion of unsaturated fatty acids, on average, is 70% by weight of fat, and therefore chicken fat is easily digestible.

The key issue for producers is the quality of meat products, as one of the main factors that is inextricably linked to economic indicators. Blood sausages occupy a certain niche among meat products, and the expansion of their range makes it possible to meet the needs of different segments of the population. Changes in lipid substances and chemical transformations due to hydrolytic and oxidative processes significantly affect the shelf life of meat products.

Hydrolytic decomposition of lipids is catalyzed by lipolytic enzymes present in the raw material and promotes the accumulation of fatty acids. It is known that the optimal temperature of lipase action is in the range of 35 ... 40 °C. At the same time, this enzyme remains active at lower temperatures, when the development of microorganisms is suspended [1].

The process of lipid oxidation occurs in the presence of oxygen, catalysts and is greatly accelerated in the presence of moisture and microorganisms. The source of oxygen in this case is the air of the substrate and the environment. The catalyst is metal ions contained in the blood, as well as organic compounds - enzymes that contain iron and the products of life of microorganisms.

Acid and peroxide numbers were determined for control and test samples of blood sausages on the last day of storage.

Conclusions. The results show an increase in the acid and peroxide counts of blood sausages. However, the increase in acid and peroxide does not exceed the permissible limits, regulated standards for fat-containing products and does not affect the organoleptic characteristics.

References.

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