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FOOD PRODUCTS ASSESSMENT OF QUALITY

Koval Olga, Goots Viktor

National University of Food Technologies, 68 Volodymyrska str., Kyiv, e-mail: Koval_andreevna@ukr.net,
Goots@ukr.net

Food quality, methods of storage is the subject of special attention and research scientists in the world. The quality of products means a series of properties that provide human physiological needs for food and flavoring substances that are safe for their health and make it possible to distinguish products one from the other. Modeling complexity of the product means that it is necessary to consider the possibility of storage in various conditions. All foods are made of biomaterials, which will eventually to change their properties, loss of quality. The process of deterioration. spoilage is objective, it can not be prevented, you can only control and influence it to slow down. The main methods of quality management are: proper selection of raw materials, technology, formulation, packaging, transportation, compliance technology and storage modes. For evaluation processes spoilage need to know the regularities of its course, the basis of their study should be based on modern methods of modeling. Given that the product loss of quality during storage and is a function of time, the model should be based on the law of kinetic modeling. Given that the product to spoilages during storage and is a function of time, the model should be based on the law of kinetic modeling. Processes spoilage classify the three main types: physical, chemical, microbiological. Between them there is a correlation, which in most cases more or less observed in all three types of damage. As a rule, they are linked by the laws of a non-linear (indirect) dependence and influence each other.

Storage practices of many food products (meat, milk, fish) shows that there is a pronounced figure spoilage. For example, cooked sausage inoperable due to the rapid increase in the number of toxic substances $y(t)$ in time t , caused by mold, then the kinetic model can be simplified by writing it in the form of a differential

equation:
$$\frac{d^2}{dt^2} y(t) - a \frac{d}{dt} y(t) = 0$$
, (1)

where a - factor characterizing the toxicity of mold.

Technique to obtain the numerical values of the coefficient a (1) is relatively simple. It is based on the interpolation of experimental data and their analysis. The theory of kinetic modeling of the quality and shelf life of food products based on second differential order equations offers much more possibilities of the kinetics analysis of accumulating harmful substances in the product in comparison with existing methods of touch, opens new possibilities for the development of standards for their qualitative assessment of food quality.

The presented model has a wide application in predicting the deterioration of various food products, the timing of their life and the intermediate state at any given time limits.

KEY WORDS model of forecasting spoilage of food product

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