

Influence of lycopine content in tomatoes on taste qualities of canned goods

© Saida S. Saidova

Dagestan State Technical University. Imam Shamil Ave., 70A.

Makhachkala, 367026. Republic of Dagestan. Russia.

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Abstract

The article provides a review of world data on the characteristics of the chemical composition of tomato fruits and the impact on their quality of the soil and climatic conditions of cultivation, varietal characteristics and maturity. It is noted that the current regulatory and technical documentation in the Russian Federation does not provide for the determination of functional substances. It has been shown that tomato fruits are a promising plant-growing raw material for the production of functional food products and directions for obtaining lycopene-containing products, canned foods, in particular, from tomato fruits, have been determined. The types of canned food and tomato products containing the highest concentrations of lycopene have been established. The regularity of increasing the concentrations of lycopene in tomato products with various methods of heat treatment is substantiated. The irreplaceable physiological significance of lycopene for the human body is proved, due to its antioxidant properties and the lack of the possibility of its synthesis. The biochemical nature of lycopene as a carotenoid and pigment is analyzed. The progressive foreign technologies of tomato processing have been studied, allowing to reduce the economic costs of production, increase the duration of storage of products containing extremely high concentrations of lycopene. The necessity of developing domestic food products of physiological importance, available for consumption in baby and diet food, is substantiated. It is proved that the Republic of Dagestan has a high climatic and resource potential for growing hybrid varieties of tomatoes containing high concentrations of lycopene and the mass fraction of dry matter necessary for the rational production of canned tomatoes.

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