CHANGES IN THE CONTENT OF VITAMIN E DURING THE MAYONESIS STORAGE ON THE BASIS OF BLENDED OILS

Yu. Khatskevych, T. Sherbakova, G. Selyutina

The paper is devoted to the study of the vitamin E content changes during the storage of mayonnaise prepared on the basis of blended oils as well as of the comparison of the residual of vitamin E content in experimental samples and traditional mayonnaise based on sunflower oil.

The analysis of the problems of modern nutrition in Ukraine shows the population consumes too many fats containing fatty acids of the ω-6 family (sunflower, corn, olive oil). Moreover, the diet misses the oils rich in fatty acids of the ω-3 family (linseed and rapeseed oils).

It is pointed the advantages of blended oils with rapeseed and sunflower oil in various ratios in the production of food products.

Due to the presence of a sufficient amount of vitamin E such mixtures are of high biological value and of high resistance to the auto-oxidation during storage.

It is presented the characteristic of the fractional composition of tocopherols (α-tocopherol, β-tocopherol, δ-tocopherol, γ-tocopherol) in sunflower and rapeseed oils. The importance of vitamin E for public health is stated as its lack in the humans leads to the activation of the formation of peroxides.

The content of vitamin E in mayonnaise products based on blended oils was studied depending on the ratio of sunflower and rapeseed oils. It is analyzed the changes in the vitamin E content during storage of mayonnaise based on blended oils. The comparison of the residual vitamin E content in experimental samples and traditional mayonnaise based on sunflower oil is carried out. It was found that all samples of mayonnaise based on blended oils contained two times higher vitamin E content as the initial sample of mayonnaise based on refined sunflower oil after 90 days of storage. It is concluded that the usage of blended oils in the production of mayonnaise products is reasonable.

Keywords: blended oils, rapeseed oil, polyunsaturated fatty acids of the ω-3 and ω-6 families, auto-oxidation, α-tocopherol, β-tocopherol, δ-tocopherol, γ-tocopherol, inhibition of the process of auto-oxidation.

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