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DEVELOPMENT OF FUNCTIONAL FOODS FOR TYPE 2 DIABETES

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Abstract: *Type 2 diabetes is a rapidly developing disease, the prevention of which includes the consumption of specialized functional foods. In this regard, the aim of this study is the development of functional food products with a hypoglycemic properties: a marmalade-like food product and mousse with the replacement of sugar in the recipe with stevia extract and with a mixture of stevia extract and inulin. The raw materials selected for the products development include apples “Golden”, mint, various gelling agents (gelatin and agar-agar), etc. to obtain optimal compositions of the developed food products, combinations of various types of raw materials and their country were experimentally determined. As a result of the research, the recipe was optimized and a technology for producing marmalade and mousse with hypoglycemic properties was developed. The research included the study of the physical, chemical and sensory properties of the developed food products. The content of the simple carbohydrates determined by the refractometric method showed that products with the addition of stevia extract contain 26-28% less sugars than the reference sample, and the water activity (a_W) is 0.97, which is higher than in the reference sample. It was also determined that in order to obtain optimal technological and sensory properties, the mass of mint added to the composition of the developed products should be 1.3% of the mass of apple puree, and the mass of stevia extract should be 0.4%, respectively. The mass of inulin should be 3% of the mass of puree, mass of gelatin 2.1% and agar-agar 1.7%. The obtained experimental data showed that the developed food products have the claimed properties and improved technological and sensory properties and can be recommended for use by people with type 2 diabetes, as well as for the prevention of the disease.*

Keywords: *Functional Foods, New Product Development, Type 2 Diabetes*

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