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EXPANDING THE RANGE OF SWEET DISHES

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Nowadays, the demand for low calorie foods is increasing for many reasons such as nutrition, health and weight management. Accordingly, there is increasing interest in the development of nutritional formulations for diseases such as diabetes or diet-related diseases caused by excessive energy intake or dietary fiber intake below the recommendations. Dairy desserts are high-calorie foods with high fat and sucrose content and are the most common dairy products worldwide. Sucrose has a high glycemic index, and for this reason diabetics should not consume large amounts of typical dairy desserts and need appropriate sucrose substitutes. That's why we showed interest in improved milk jelly technology.

Lactose intolerance, cholesterol control, and protein allergies have stimulated the industry to develop desserts from new ingredient sources not only because of their health appeal, but also because of their potential acceptability by consumers of all ages. Therefore, in recent years, the use of lactose-free milk in the preparation of various functional products has gained popularity. The main advantage of lactose-free milk over vegetable analogues is the presence of proteins in it: casein, albumin and globulin, as well as vitamin B12, which is important for the prevention of anemia. But when preparing sweet dishes, lactose-free milk can affect the taste of finished products, it tastes sweeter, that is, it is advisable to reduce the use of sugar in the recipe.

It should also be noted that currently there is a small selection of products for diabetics in the retail network of Ukraine. Therefore, the second goal of the work was to reduce the use of crystalline sugar as much as possible. Currently, in Ukraine, it is allowed to use a natural sugar substitute - stevia, which is a reliable alternative to sugar because, unlike other natural types of sugar, it has a low glycemic index.

Almonds contain vitamins of group B, E, K and others, and have other antioxidants. The composition of the almond bioproduct contains more monounsaturated (10.64 g) and polyunsaturated (3.71 g) fatty acids, unlike other samples of vegetable origin - it was dominated by oleic and linoleic fatty acids.

Analyzing the above, it was decided to replace cow's milk with lactose-free (almond) milk and add pear puree. Due to the use of additional fruit puree, the amount of gelatin was reduced, because this additional raw material contains fiber, which affects the formation of jelly.

When examining the quality of the developed product, namely the nutritional and biological value, it can be concluded that the content of proteins, carbohydrates and dietary fibers decreased, but the amount of fat was increased by 24%. Caloric content decreased by 8%.

The improved formulation of milk jelly has a significantly increased amount of such vitamins as A, B1. From the obtained analysis of the mineral composition, it is possible to confirm the saturation of the product with mineral substances in the new formulation with potassium by 31%, magnesium by 7%, and phosphorus by 31% compared to the control.

An integral score was calculated to determine the degree of satisfaction of the body's daily need for basic nutrients. The calculation showed that the improved dish satisfies a person's daily need for 10-50% of such substances as calcium, magnesium, phosphorus, potassium, iron, zinc, vitamin B1. A new approach to the formation of the assortment of jelly makes it possible to offer it to consumers who are recommended to use low-glycemic products, because the glycemic index of the sweet dish does not exceed 55 units.

As a result of the improvement of the recipe, the caloric content became 2.25 times higher, but the amount of all vitamins increased. The content of proteins and carbohydrates remained almost stable, but the amount of fat was increased by 4.8 times and dietary fiber by 4.6 times, meeting the daily requirement by 115%.