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TECHNOLOGYS OF CONFECTIONERY PRODUCTS GLUTEN-FREE IN RESTAURANTS

The increase in the number of cases of diseases associated with metabolic disorders and allergies to food components is caused by heredity, environmental degradation, malnutrition. Particularly dangerous and difficult to treat disorders of protein metabolism, manifested in the deterioration of the functioning of the digestive organs and kidneys, disorders of the central nervous system, delayed physical development [1]. One such disease is celiac disease. It is a disorder that damages your small intestine and keeps it from absorbing the nutrients in food. The damage to your intestinal tract is caused by your immune system's reaction to gluten [2].

According to the World Association of Gastroenterologists, celiac disease affects about 1% of the population of our planet. This disease is associated with intolerance to gluten, which is contained in cereals and processed products. Prevention and treatment of this disease is, above all, adherence to special diets [3]. These are gluten-free or protein-free diets in which the protein does not contain gliadin, because it is gliadin that causes allergic reactions in patients with celiac disease. The diet of these patients is very limited. Traditional confectionery is contraindicated because the proteins of such products contain gliadin. The increase in patients with celiac disease encourage the development of gluten-free products including bread, flour confectionery and culinary products [4].

In addition, in recent years there has been a significant increase in the number of

consumers who minimize or even refuse to include wheat flour in the diet. Therefore, today there is a prospect of improving or developing recipes for different groups of dishes with the replacement of wheat flour [5]. This is especially true of flour confectionery, which is popular among various groups. An important place among confectionery belongs to muffins. This is a new product for the Ukrainian market, the demand for which is growing every year. Muffins – American small buns Conventionally, all muffins can be divided into sweet and unsweet. Bake muffins in special molds, the volume of which usually does not exceed 100 ml [6]. Muffins, according to the American classification, belong to the "fast bread" because they are much less buttery than cupcakes. The proportion of butter and eggs in relation to the flour ranges from 20% to 40%. The more oil in the recipe, the longer the shelf life of muffins [7].

The recipe of all flour confectionery products, including muffins, includes wheat or wheat flour which are carriers of gluten. The analysis of literature sources did not allow to establish the production of muffins on gluten-free flour. We were given the task of developing muffins for special purposes for people with celiac disease [8]. After reviewing the literature [6] and getting acquainted with the features and specifics of the giuten free diet, in the muffins wheat flour was completely replaced by corn flour. It is higher in health benefits: 29,0 g of corn flour provides 22,0 g of carbohydrates, 3,0 g of protein, 1,5 g fat, 2,0 g fiber and many other nutrients such as: vitamin B, iron, potassium, magnesium [9].

“Muffins gluten-free” are consist of corn flour, butter, sugar, melange, ammonium, flavoring. The technology of “Muffins gluten-free” is consists of the following operations: softened butter is beaten for 7-10 minutes, sugar is added and beaten for another 5-7 minutes, gradually pouring in the melange. The ammonium and salt are added, thoroughly mixed. Corn flour is added and the dough is kneaded. The dough is laid into forms, pre-greased with oil, and baked at a temperature of 200 ° C for 25-30 minutes.

Finished products have a high organoleptic evaluation and meet the physico-

chemical quality indicators according to regulations. The crumb color of samples was greatly change by the replacement of wheat flour. It became rich yellow.

Muffins were evaluated on the basis of acceptability of their appearance, flavor, odor, texture and overall preference by a hedonic 10-point scale. The 10 means most liked and 1 most disliked. The crumb color of samples was greatly change by the replacement of wheat flour. It became rich yellow. These muffins have easy low texture quality associated with high crumbly structure of corn flour. But the general average results showed that all the samples had good scores, between 7 and 9 on a 10-point scale.

Muffin gluten-free provides 318 kcal / 100 g. This is 58 kcal less than muffins with wheat flour. Moreover muffin gluten-free includes 3,2 g of protein, 35,6 g of carbohydrate, 9 g sugar, 18,4 g of fat.

Today there is a renewal of thinking and reassessment of values. Currently, the areas of effective use of raw materials, the involvement of state-of-the-art knowledge in the food sector, modern methods of influencing food ingredients have been updated. time-tested and time-tested approaches have become relevant - food must perform preventive, health and therapeutic functions.

That’s why many health-conscious eaters choose muffins with their healthy morning meal because they think it's a more nutritious choice than bread. Expanding the range of flour and confectionery products based on corn flour is relevant.

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