

RESEARCH ON THE PRODUCTION OF MAYONNAISE PRODUCT
ENRICHED WITH BIOLOGICALLY ACTIVE COMPOUNDS*M. SOBIROVA, S. MUZAFFAROV**Tashkent chemistry technology institute Yangiyer branch***Abstract**

Food in the article products are the main source of biologically active substances in the human body, as well as the mayonnaise product, which is prepared from various semi-finished and finished products, and its composition. As we know, food plays an important role in maintaining the balance between health and disease in addition to satisfying the human body. Therefore, in the preparation of the mayonnaise product, it is relevant to enrich it with physiologically beneficial substances that are included in a wide group of functional foods, that is, that improve human health. This article recommends using watermelon seed oil instead of egg powder when making mayonnaise products.

Key words: mayonnaise, functional substance, fatty acids, ingredients, vitamins, cholesterol, antioxidants, trace elements.

Food products are the main source of biologically active substances in the human body. Most of the biologically active substances are from providing basic nutrients besides, it has a significant positive effect on human health [1]. In recent years between human nutrition and health concepts changed radically. World nutritionists say that functional food products are increasingly recognized by consumers who are not indifferent to their health. In addition to satiating the human body, food plays a central role in maintaining the balance between health and disease. With this in mind, people's understanding of functional foods has undergone a paradigm shift from engineered traditional foods to functional foods following the advent of biotechnological interventions. The term "nutrition" combines the two main fields of nutrition and medicine and highlights the benefits of both. Functional foods are added to the daily diet as food ingredients or food additives to perform certain functions and therefore have beneficial properties.[2]

At the current stage of development, the following main types of functional components are used: dietary fiber, vitamins, minerals, polyunsaturated fats, antioxidants, oligosaccharides, trace elements, bifidobacteria, and others. For the production of food products, it is allowed to use food additives that do not have a harmful effect on human life and health. Food products enriched with vitamins and minerals are included in a broad group of functional foods, that is, products enriched with physiologically useful food components that improve human health [3]. These ingredients, along with vitamins and minerals, also include dietary fiber, lipids including polyunsaturated fatty acids, beneficial species of natural lactic acid bacteria, particularly bifidobacteria, and oligosaccharides necessary for their nutrition. contains z.

The reason why we are talking about biological additives is that the composition of the mayonnaise product, which is very common today, and the additives added to it are relevant.

According to the World Health Organization (WHO), about 40 percent of cancers in men and 60 percent in women are related to nutritional problems. Lack or excess of food components can cause metabolic problems and organ dysfunction. "A dose of an inactive carcinogen caused by a disordered and unhealthy diet can cause swelling," concludes Russian doctor Ivan Karasev.

According to Karasev, now people's diet includes foods that were not consumed in large

quantities before - sugar, margarine, mayonnaise, fast food, industrial canned goods.

Mayonnaise is an emulsion consisting of two phases - oil and water, both of which can be enriched with biologically active substances necessary for humans .

Different for the industrial production of mayonnaise different recipes are given in table 1. The formulas given in the table and the various factors influencing emulsion stability have been critically studied by Corran. While in many ways the egg yolk is the most critical ingredient, it is not the best emulsifier in a clear system. Lecithin and cholesterol are recognized as surface-active component (additive) of egg yolk.

Various recipes of industrial mayonnaise. %

Table 1

Ingredient	Industry standard	Light	Average	Deep
OIL	45.0	77.3	78.8	81.2
Salt	1.5	*	*	*
Egg yolk	8.0	9.0	8.5	*
Gorchitsa	1.0	*	*	*
Water	3.5	**		
Vinegar ***				
A mixture of spices				
Vinegar and water				
*In combination with a mixture of spices				
** Combined with a mixture of water and vinegar				
***6% vinegar				

After studying and analyzing the literature and sources, we suggest to use locally sourced raw materials rich in biologically active substances instead of egg yolk in the production of mayonnaise.

Watermelon seed oil contains a lot of double bond fatty acids (listed in Table 2) and is rich in vitamins and trace elements. Cold pressed essential oil from watermelon seeds normalizes the acid-base balance in blood and cells, dissolves kidney stones, slows down the development of prostatitis, affects lipid metabolism and cholesterol balance in the treatment of tuberculosis.

Chemical composition of watermelon oil

Table 2.

Fatty acid	Percent
Palmitic acid (C16:0)	11.0
Stearic acid (C18:0)	10.0
Oleic acid (C18:1)	15.0
Linoleic acid (C18:2)	63.0

Protects the body from premature aging. Enhances hormonal activity, increases immunity and accelerates wound healing. It is used in the treatment of asthma, eczema, allergies, depression, diabetes and a number of other diseases. Watermelon seed oil contains 53 types of micro and macro elements. Including iron, zinc, magnesium, selenium, etc. Watermelon seed oil is rich in complex fat-soluble vitamins A, E and F. Vitamin E is considered a very powerful

natural antioxidant and is of great importance in the life of living organisms. Based on the above, in the article we recommend using watermelon seed oil in the production of mayonnaise products.

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