

ARGUMENTS AND DEVELOPMENT PROSPECTS OF THE BUTTER
PASTE, ENRICHED WITH UNSATURATED FATTY ACIDS AND
BEEKEEPING PRODUCTS

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Statistics of economically developed countries indicates that about 70% of all human diseases are directly or indirectly related to dysnutrition. In recent years, in the European Union, the USA, Japan and other countries functional foods were widespread as a new and promising trend in the food industry to improve nutrition structure, maintain of health and for reduce the risk of widespread diseases of modern human (cardiovascular system , atherosclerosis, obesity, carcinology, diabetes).

One of the main problems of the modern food industry is food process design which satisfy human needs both the basic nutrients, energy and have preventive and therapeutic results. N.A. Tikhomirova reported that among the first preventive-therapeutic products include products designed to adjust lipid metabolism, reduce the cholesterol formation, and increase more unsaturated fatty acids quantity intakes[4].

Butter is one of the fundamental foodstuff of the population of Ukraine. However, G. Bobe and co-authors (Departments of Animal Science and of Food Science and Human Nutrition) noted that dairy products, in particular butter, have been considered to increase the risk for cardiovascular diseases in humans because, in comparison to other lipid sources, they contain a higher proportion of lauric, myristic, and palmitic acids and a lower proportion of unsaturated fatty acids. Thus, the study of lipid profile serum protein showed that total serum cholesterol level was significantly higher compared with blood samples of men who consumed butter as the main source of fat and men who consumed the plant, animal and fish as the source of fat of the diet. Increase low-density

lipoproteins in the blood serum was also observed. This fact may initiate or exacerbate atherogenesis process in humans.

Given the above, the planning of butter paste as analogue butter with low fat, enriched with unsaturated fatty acids and beekeeping products, has a particularly important significance for people with increased risk of cardiovascular disease, diabetes, overweight people. This is a functional product with high milk plasma content, low energy value, high skimmed milk residue content enriched with biologically active substances and unsaturated fatty acids.

Unsaturated fatty acids is a necessary textural material of cell membranes and a source of biologically active compounds that have importance in the tissue regulation processes in practical significance. Unsaturated fatty acids control metabolism that may lead to lower blood pressure and stimulate the hormones of secretion in the human body.

Beekeeping products play an important role in the prevention and treatment of various diseases with tonic, regeneration, hematopoietic, protective, antitoxic, anti-inflammatory and anticancer properties. As for honey, the research results of the Institute of pure and applied biological sciences, Bahauddin Zakriya University (Multan, Pakistan) showed that honey consumption had shown exceedingly improving effect on blood lipid profile in obesity compared to normal weight status. Laboratory studies and clinical trials showed that honey possesses a broad spectrum of antimicrobial activity and causes increase of antibodies against production of thymus dependent and thymus independent antigens. Consumption of honey decreases the concentrations of prostaglandins in the plasma of normal individuals and increases antioxidant agents, serum iron and blood hematological indices. Al Waili found that natural honey improves lipid profile, lowered normal and elevated C-reactive protein, lowered homocysteine and decreases triacylglycerol in patients with hypertriglyceridemia.

Pollen is a valuable product of beekeeping also – it is product of plant anthers that are pollinated by insects, enriched by bees enzymes. Its proteins are similar to

human blood proteins in composition, and are perceived by the body as a high quality food product that has excellent healing properties.

Thus, the complex combination of unsaturated fatty acids and beekeeping products in the butter paste in the hypothesis can be considered as a functional dairy product with low-fat content that can provide preventive effect on the body, can be exceedingly relevant to the regulation of lipid metabolism, can have importance for prevention of cardiovascular disease, to decreasing of total cholesterol and low-density lipoprotein cholesterol, as well as the body bracing.

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