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ХАРЧОВИХ ТЕХНОЛОГІЙ

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РОЗДІЛ 6

**СОЦІАЛЬНІ ТА ЕКОЛОГІЧНІ АСПЕКТИ
СУЧАСНОЇ ЖИТТЄДІЯЛЬНОСТІ**

the Hadzhibey estuary, seawater has the resource of increasing its assimilation capacity and can promote its self-purification to the level, for example, of the Tiligul estuary.

Thus, scientifically unjustified nature management with respect to estuaries in the Odessa city limits requires urgent measures to restore the ecosystem of the Hadzhibey estuary and to cancel erroneous decisions on the "rescue" of the Kuyalnik estuary.

Scientific adviser – Doctor of Technical Sciences,
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BALANCED PUPPED OILS FOR FOOD AND COSMETIC PRODUCTS

Lanzhenko L.O, Ivashchenko A.A, Manukyan V.O.

Creation of safe, high-quality and full-fledged functional products, balanced by the main nutrients, has become a «right» trend for the food and cosmetics industries [1].

The concept of a healthy lifestyle involves the use of various skin care products and the consumption of foods that contain exclusively natural substances and are balanced, in particular, with polyunsaturated fatty acids (PUFA) [1, 2].

Vegetable oils provide the human PUFA with a wide range of biologically active substances; nourish, soften and moisturize the skin, prevent its aging, increase tone, elasticity and elasticity of the skin.

Today, developing formulations of food products and cosmetics that would provide the most positive effect for the body, are guided by the composition of fatty acids and the recommended proportions between the main fatty acids [3, 4].

The optimum ratio of ω -6: ω -3 PUFA is 10: 1. High PUFA products have antiatherosclerotic, antiarrhythmic, anti-inflammatory and anti-allergic properties and can be used to prevent cardiovascular disease, including atherosclerosis, angina pectoris, arrhythmia, thrombosis, as well as in the treatment of acute and chronic inflammation[5].

Therefore, **the purpose of the work** was to choose vegetable oils for the production of balanced PUFA blended oils.

The objects of research were selected unrefined sunflower, linseed, grape and mustard oil, obtained by cold pressing technique at LLC «AVA» (Odessa plant of stone and vegetable oils).

The selected vegetable oils have a different ratio of fatty acids and contain different amounts of saturated (SFA), monounsaturated (MUFA) and polyunsaturated fatty acids (PUFA) (Table 1).

Table 1 – The content of fatty acids in vegetable oils

Type of oil	SFA content,%	MUFA content,%	PUFA content,%
Sunflower	5,1...11,0	24,0...40,0	47,4...63,9
Linseed	10,0	20,0...25,0	59,0...76,0
Grape	8,0...16,0	12,5...29,5	58,0...79,0
Mustard	2,8...3,0	52,8...79,4	25,0...37,0

The first stage of research was the determination of the quality indices of vegetable oils: organoleptic parameters (transparency, taste, smell, color); peroxide number and acid number. The organoleptic parameters of the vegetable oils studied were shown in Table 2.

Table 2 – Organoleptic characteristics of vegetable oils

Name	Transparency	Taste	Odor	Color
Grapeoil	Transparentwithoutprecipitate	Oilaftertaste	Fermentedgrapes	Green-brown
Linseedoil	Transparentwithoutprecipitate	oilaftertaste	Softsmelloflinseed	Yellow
Sunfloweroil	Transparentwithoutprecipitate	pleasant	Sunflowerseeds	Yellow
Mustardoil	Transparentwithoutprecipitate	Oilwith a tasteoffish	Thesmellofgrass	Saturatedorange

According to all indicators, selected vegetable oils comply with the requirements of normative documentation, the grade is set not lower than the first one.

The value of the acid number (cm³NaOH/g) for sunflower oil is 1,3; linseed oil – 2,7; Grape – 2,8; mustard – 1,7. The value of the peroxide value (% J₂) for sunflower oil is 0,0050; linseed oil – 0,0045; grape – 0,0127; mustard – 0,0620.

The prediction of the composition of the blends was based on the recommended ratio of ω-6: ω-3 PUFA, which is 10: 1.

On the basis of the mathematical model proposed by the prof. M.M Lipatov, carried out the modeling of the fatty acid composition of the blend in the program Exsel:

$$L_j = \frac{\sum_{j=1}^5 \sum_{i=1}^r X_i \times L_i \times L_{ij}}{\sum_{i=1}^r X_i \times L_i}, \quad (1)$$

where L_j – the mass fraction of j -fatty acids in the fat of multicomponent systems;
 X_i – the mass fraction of the i -th fat component in the projected product, the fraction of unit;

L_i – the mass fraction of fat in the i -th component, %;

L_{ij} – the mass fraction of j -fatty acids in fat of the L_i component, %.

On the basis of the data obtained, two blended vegetable oils were created: a mixture of sunflower oil (content in the blend of 90,35%) and linseed (content in the blend of 9,65%) of the oil; a blend of grape (content in the blend of 53,2%) and oil (content in the blend of 47,8%). The resulting amount of vegetable oils allows you to create blends with a balanced ratio of ω -6: ω -3 PUFA, which in the finished two-component blends is 10,03: 1.

Conclusions. The choice of the components of the blended oils, followed by the prediction of the fatty acid method, allows you to create a product with a balanced ratio of ω -6: ω -3 PUFA 10,0: 1 recommended by the World Health Organization, that is, sunflower and linseed oil – each content in the blend is 90,35% and 9,65% respectively; and grape and mustard oil – 53,2% and 47,8% respectively.

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ANALYSIS OF GASTRONOMIC FESTIVALS MARKET IN ODESSA

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Gastronomic tourism is gaining popularity in the world. This tendency is happening in Ukraine too. Odessa is considered to be the most powerful cultural and historical, economic and tourist center of the South Ukraine.

According to the works of Kivela and Croats, Khialager, Corilyano and Yuan, gastronomic events, and festivals in particular, are one of the forms of gastronomic tourism, and play an important role in the acquaintance of tourists with local traditions.

In 2000, Gates stated that gastronomy provides an opportunity to feel the authenticity of the lifestyle of local people in a pleasant atmosphere. Goldblatt believes that great events are an attractive element of the deployment.

Moreover, in 2012, Gates expressed the opinion that gastronomic subjects multiply the degree of place's attractiveness.

Gastronomic festivals are becoming more and more popular in Odessa. You can taste the best dishes of Odessa restaurants, meet friends, sit at the big table in the colorful courtyard or in the nature, listen to local musicians or attend master classes. Lots of events are being arranged on weekends, and gather hundreds of guests.

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Наукове видання

**Збірник наукових праць
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Том 1

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