

IMPROVEMENT OF CONSUMER PROPERTIES OF COSMETICS

Kolesnyk V., Cand. of Techn. Sc., Assoc. Prof.

Penkin A., Assist.

Varyokha U., master student

State Biotechnological University, Kharkiv, Ukraine

The world market of perfumery and cosmetic products is quite saturated. The intensive growth of demand for new types of cosmetic products leads to an increase in the rate of development of their production and foreign trade.

Today, cosmetic products are a daily necessity of every civilized person. Despite the huge variety of products, the consumer carefully selects those that best suit him in physiological and psychological aspects. It has long been a common need to brush teeth, wash, care for hair, skin or nails. As many people as there are original approaches. Someone determines for himself the expected effect from use or selects products according to the physiological features of his appearance, while for others, aesthetic characteristics are important. The consumer's free choice when purchasing and the diversity of the product range develop a powerful marketing struggle, in which manufacturers strive for constant improvement to meet the requirements of all consumers.

Having analyzed the technologies of creating the formulation of various cosmetic products based on the works of well-known specialists in the cosmetic industry, an unequivocal conclusion was made that from the entire list of factors that shape the final quality, from the point of view of the consumer, the most important is the planning and development of the component content of products.

A significant part of the world market is occupied by production based on artificial compounds, which is in a more affordable price segment for the consumer. Although the rationing of chemical compounds is regulated in the State Sanitary Norms and Rules, due to the number of components, the complexity of chemical processes, the obsolescence of methods and devices, the chemical composition of cosmetics is difficult to research and analyze. It should be noted that production has significantly improved and new ingredients are added to recipes without proper regulatory reasoning at the state level.

One of the strategic directions of effective development of the leading states is the development and application of nanotechnology in various industries. Aware of the prospects of nanotechnologies, most countries of the world invest large sums of money in their development,

implementing relevant national programs, but it is interesting that cosmetology is the most open field for their use, therefore, the prospects of their introduction in the domestic cosmetic industry were analyzed.

At the current stage of the development of the economy of Ukraine, during the production of the corresponding products, more detailed attention is paid to the issue of increasing sales volumes. The consumer, having a wide selection of facial scrubs presented in the trade network, pays attention not only to the appearance and the price factor, but also attaches special importance to safety and comfort during use. Therefore, the development of a new universal scrub that is suitable for all skin types and for any age category is an urgent and timely task today.

In connection with the deterioration of the ecological situation, means for cleaning the skin should have not only hygienic properties, but also therapeutic and preventive ones. Hence, there is a need to expand the assortment of these products and create a new type of cosmetic scrubs, which include a natural component of a wide range of action - walnut membranes. Walnut membranes contain mineral elements in their chemical composition, such as iodine, potassium, sodium, magnesium, calcium, phosphorus, zinc, manganese and boron, B vitamins, tocopherol, retinol, vitamin D, ascorbic acid, tannins, glycosides, pectin, from amino acids the most significant: serine, cystine, asparagine, lutamine, histidine. Means, which include membranes, smooth out wrinkles, improve complexion. Antioxidants bind free radicals and slow down the aging of the body, and a large amount of ascorbic acid strengthens weakened immunity.

Membranes are rich in vitamin A, which is necessary for the skin. Wounds, skin rashes, any other damage to the skin heal much faster if a person has enough. Vitamin C protects the body from the action of free radicals, thereby preventing the process of premature aging. If the vitamin is sufficient, other vitamins are well absorbed. The vitamin E is very useful for the skin, as it is «responsible» for the regeneration of epithelial cells.

Walnut membranes have an incredibly wide range of medicinal and useful properties. The main ones are bacteriostatic and bactericidal. They suppress activity, and also kill a considerable range of microorganisms, including viruses, fungi. At the same time, the microflora characteristic of the human body does not suffer.

With the help of mathematical modeling and experimental studies, it was found that the developed face scrub should contain walnut membranes crushed to the size of $(0.1...0.2)10^{-3}$ m, in the range of 5...25 wt. %. The addition of membranes is less than 5 wt. % will not provide cleaning of the exfoliated epidermis due to the low level of scrubbing, adding more than 25 wt. % will lead to an irritating effect of the product on the skin.