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RECEIVING VITAMIN-RICH COMPLEXES AND FOOD ADDITIVES IN THE PRODUCTION OF FOOD PRODUCTS

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The production of natural food products using local, convenient and relatively cheap plant raw materials, which have a positive biological effect on the human body, is a promising direction in the field of healthcare and food industry. Such products have certain therapeutic and preventive properties, increase the body's resistance to extreme conditions, prevent various vitamin deficiencies, and normalize mental and physical activity. Regular consumption of such products reduces the negative effects of unfavorable factors in the external and internal environment of the body.

In addition, it is important that people are insufficiently supplied with a full-blooded, balanced diet, especially in terms of the amount of biologically active substances. Their lack in the human body, the presence of free radicals with oxidizing properties (oxidants) in the body, the occurrence of many diseases, physical and mental fatigue, disorders of the endocrine and immune systems, including other serious diseases (diabetes, atherosclerosis, hepatitis, ischemia, arthritis, oncological tumors). Therefore, the therapeutic effect of many medicinal and vitamin plants is due to the presence of biologically active substances (BFM) in them – natural antioxidants: polyphenols (flavonoids, oxyacids, catechins, tannins, anthocyanidins), carotenoids, vitamins, fatty acids. The long-term deficiency of these compounds also negatively affects the normal functioning of the human body. This is a plant raw material that can significantly reduce the deficiency and in many cases has a therapeutic and preventive effect on certain diseases. It is among them that the subject of this research work is [1].

The purpose of the research is to develop technologies for the preparation of enriched natural polyvitamin concentrates, drinks, puree and jam based on the rational use of namatak fruit.

In order to obtain high-quality raw materials with a lot of biologically active substances, fruits are harvested from the moment of technical maturity and immediately dried with heat in ovens. It is necessary to ensure the maximum quality of the substances. In our work, when choosing the temperature regime, special attention was paid first of all to the preservation of vitamin C, due to its thermolability, it is lost even at high temperatures and during long drying. It is known from the literature that the duration of drying at 80°C is 5-7 hours, 7-9 hours at 60°C, 10-13 hours at 45°C, and the amount of ascorbic acid in dry raw materials is determined. were known to be slightly more conserved than the regimes. Based on this, we dried 5 samples of namataki collected from different regions of Namangan region at 60 °C to 5-14% moisture content. We stored the finished raw materials in moisture-proof bags in a dry room. The storage temperature should be around 20 °C [2].

The results of our research show that the amount of biologically active substances in namatak fruits depends on the cultivation of plant raw materials and climatic conditions [2,3].

Also, it is advisable to keep them whole and grind them in time for extraction. We offer the following technological scheme for the preparation of natural multivitamin drinks by extracting namatak fruit.

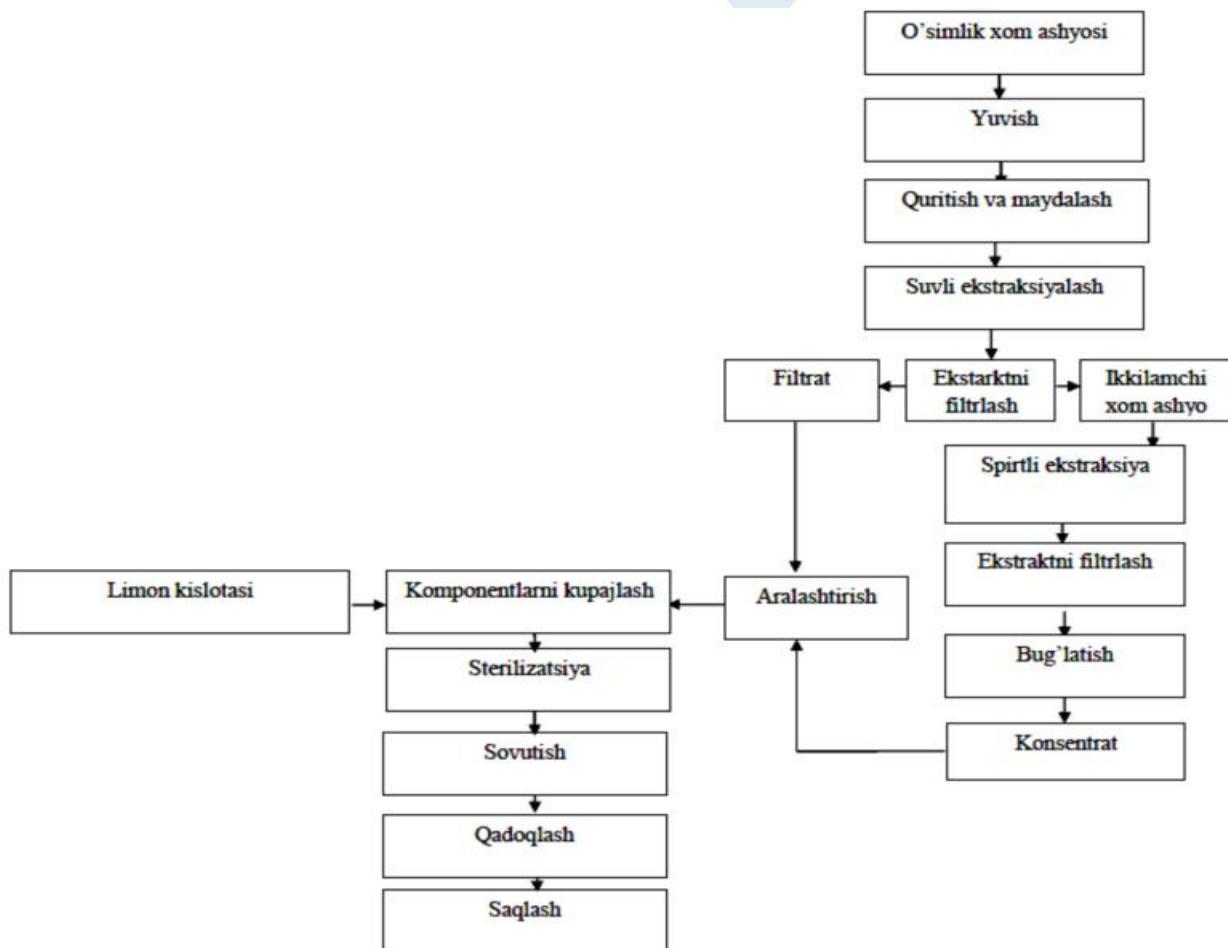


Figure 1. Technological scheme of production of natural multivitamin drinks from Namatak fruit.

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