The new natural functional healthful juicy nanobeverages with a record amount of BAS (L-ascorbic acid, β-carotene, chlorophyll, anthocyanins, phenolic compounds) and prebiotics (cellulose, pectins) in a soluble ion-molecular form are developed. As an innovation in technology of nanobeverages the authors used the herbal carotene-, chlorophyll- and anthocyanin-containing cryopuree from fruits and spices in the nanoform as fortificants of BAS, colorants and structure formers. The beverages are aimed for immunological prophylaxis and recommended for the use at the enterprises of restaurant business, tourism and fitness centers.

It is shown that the frozen cryoadditives from fruits and vegetables (apples, cherry, black currant, lemons with a peel, spinach, apricot, sea buckthorn, pumpkin) are found in the nanostructured form (on 70%) and have a particle size ten times smaller than in traditional puree. It is determined that the cryopuree has fundamentally new properties and chemical composition, in comparison with puree, which are made by the traditional technologies. In particular, they differ by a higher content (2,5–4 times) of vitamins, carotenoids, anthocyanins, chlorophylls, phenolic compounds and other BAS in the free state in a soluble and easily digestible form comparing with the fresh fruits.

It is shown that the new healthful juicy nanobeverages, obtained with the use of frozen nanoadditives from fruits and vegetables and phytoextracts from natural spices, differ in a record amount of vitamins (L-ascorbic acid), β-carotene, chlorophylls a and b, anthocyanins, low- and high-molecular phenolic compounds, aromatic substances and other BAS. They have a pronounced natural color (yellow, green, pink-and-cherry), original taste and aroma, do not contain synthetic components. The nanobeverages exceed the world-known analogues by the content of BAS, and they are recommended for use in immunoprophylaxis of the population.

Keywords: healthful nanobeverages, natural nanopowders, carotene-, chlorophyll-, anthocyanin-containing additives, fruits, vegetables.