THE PECULIARITIES OF USING WHEY AND RETENTATE, OBTAINING OF HIGH-QUALITY HEALTH BEVERAGE

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The article compares characteristics and chemical composition of different types of vitamin serum, highlights the state of manufacture, product range in Ukraine and abroad, the ways of domestic sales of milk and dairy products.

The current level of membrane technology enhances the processing of whey in dairy industry. Among modern membrane technology in Ukraine, Nano filtration acquired practical application, through which the concentration of whey ensure a mass fraction of solids of 20–22%. The product with the improved technological properties, easier to further processing may be subjected to transportation, can be implemented to other companies in the form of liquid and dry concentrates, or used in the production technology of dairy products. Therefore, using Nano filtration is appropriate for the concentration of whey during the production of drinks based on retentate.

The article presents the results of the research of whey (obtained in the production of hard cheese) and retentate obtained by concentrating whey through Nano filtration using physical-chemical, microbiological and organoleptic characteristics. Taking into account good technological properties and high biological value of whey and retentate, and in order to expand the products' range, to meet consumers' needs, drinks with balanced protein and carbohydrate composition for health food were created. Fruit and berry fillings (juice "apple-pear" and "strawberry-cherry") were taken; their qualitative composition and compounding were calculated, after which experimental samples of drinks were prepared. The next stage of research was to determine organoleptic, physical, chemical and microbiological prototypes of drinks prepared by the two recipes. After a series of studies, we can draw the conclusion that due to the peculiarities of composition and properties of whey and retentate, and their successful combination with vegetable filling, we have high-quality health food drinks with good physical, chemical, microbiological and organoleptic characteristics.

Keywords: whey, Nano filtration, retentate, lactose, mineral composition, solids.