TECHNOLOGY OF FUNCTIONAL JUICE-CONTAINING NON-ALCOHOLIC DRINKS

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Abstract

Functional foods are becoming a strategic sector of food industry of 21th century. They are produced with employment of innovation technologies to improve qualitative adequacy of dietary intake by providing compliance of their chemical composition with human organism.

Beverages are the important element of food supply. They are claimed to be the most promising food system in feeding the human organism with such micronutrients as vitamins, mineral substances, antioxidants, organic acids and other active biological substances. Their deficiency disrupts immune status, reduces resistivity to infections increases disease risks.

The basic tendency of the nonalcoholic beverage market is reduction of ordinary lemonade sales with growing sales of functional beverages. The market of “healthy” drinks in Ukraine and throughout the world is constantly growing, and its special beverage segment is not completely formed.

The purpose of this research is to scientifically ground the technology of juice-containing nonalcoholic whey-based beverages using wheat germs and pectin-zostera cellulose. Functional compositions base on fruit raw products were balanced in compliance with daily food requirements of a human in vitamins – antioxidants, mineral substances, and food fibers.

The receipt scheme took into account such properties of whey protein as its ability to relieve stress and neurosis and to normalize human emotional activity. Moreover, it is a reliable means for heart disease prevention and curing rheumatism and hypertension. Whey protein improves work of kidneys and liver, curbs atherosclerosis, stimulates blood circulation, prevents inflammation in bowels and stomach. Wheat germ cellulose restrains digestive enzyme coming to carbohydrate. It saves the organism from glucose jump in blood improving insulin synthesis, which stimulates fat formation. Cellulose decreases cholesterol and atherosclerosis and reduces cancer risks in large bowels. Pectin-zostera has antiulcer effect, normalizes gastrointestinal tract, enhances the feeling of being sated, and eases the organism at low-calorie diets. A very important peculiarity of pectin-zostera is its ability to decrease cholesterol content in blood and to provide anti-sclerosis properties. Of particular interest are the research data concerning anti-tumor and gero-protective potential of zostera. Majority of authors emphasize the multifunctional effect of this pectin on the human organism.

Key words: *Drinks, Health and welfare, Nutritional correction, Fiber wheat germ, Whey, Pectin.*