THE ANALYSIS OF THE USING EFFICIENCY JAPANESE MATCHA TEA IN THE FERMENTED MILK PRODUCTS PRODUCTION

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Abstract

One of the priority directions for development of food technology in the world is the production of functional food enriched with irreplaceable nutrients. For this purpose, the production technology of yogurt has been elaborated using the Japanese tea matcha as a source of antioxidants, tonic substances, polyphenols, vitamins, minerals and compounds that form a tea flavor.

The material of the research was raw ingredients of the yogurt composition, and experimental samples of yogurt. Evaluation of the yogurt quality was carried out according to the following generally accepted methods: organoleptic characteristics by tasting evaluation, titratable acidity - method acid-base titration, mass fraction of protein by K'el'dal's method, mass fraction of fat by Gerber's method acid, mass fraction of sucrose by iodometric method, and energy value - calculation method. The necessity of the thickener using was established on the basis of the basis of the mathematical analysis the viscosity curves obtained by the capillary viscometry of yogurt's samples.

During the research it was revealed that original technology ensures the presence of tea leaves in yogurt in full volume of finely particles and eliminates the loss of valuable substances with brewing. For the purpose of reducing the degree of deposition of fine particles in the tea powder and the elimination of sludge generated in the fermentation, the production of the new yoghurt is carried out using the reservoir method. The best consumer properties of yogurt provides additional matcha tea in ratio with sugar 1.5 : 7. The solids content in yogurt increased by 5%, increasing food and energy value. Japanese matcha tea reduces the acidity of the yoghurt and slow its growth during storage. Analysis of the viscosity curves showed that the effect of the presence of the thickener in yogurt at room temperature disappears.

Scientifically substantiated and experimentally proven is the possibility of using matcha tea in the production of fermented milk products functional actions.

Key words: *Functional yogurt, Matcha tea, Solids, Acidity, Viscosity, Starch.*