IMPROVING QUALITY OF CEREAL GRAIN CREAM UNDER THE INFLUENCE OF THE INOCULUM, ENRICHED IN THE PREPARATION «BETAVITON»

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In the processing of goat milk into fermented dairy products (cheeses, sour milk drinks and ripen butter) there is a problem of increasing the demonstration of goat milk characteristics (goat yolk taste and smell), which most consumers of dairy products perceive as a quality defect. We consider biotechnology of sour milk cheese “Osoblyyvi” (“Special”) to be the closest to solving the problem of improving the quality of goat milk cheese. During the development of its biotechnology we specified the composition of milk, ratio between individual ferments, that are able to provide the required product characteristics (with a leveled taste and of goat yolk) smell. For this purpose, four lots (E.1-E.4) of goat curd cheeses with different combinations of ferments were made – main (Lactococcus sp.) and auxiliary monocultures (Propionibacterium sp. and Lb.acidophilus) in such ratios: lactococci, propionic bacteria, acidophilous Lactobacillus: E.1 – 50:30:20; E.2 – 60:30:10; E.3 – 60:25:15; E.4 – 55:25:20 respectively. However, the highest titrated acidity (200 °T) was observed in the experimental variant E.2 of the curd cheese with the ratio between the ferments 60:30:10. Such a high level of acidity and taste sensation is unacceptable, so L. acidophilus culture was replaced with L. delbrueckii ssp. bulgaricus. To address the problem of improving organoleptic parameters of ferment from goat milk and cheese with it, we focused our attention at the water-soluble food additive “Betaviton” with vitamins C and E. According to the recommendations of the preparation’s manufacturer, rational dose for its use in the production of curd cheese should be 0.05% of the weight. Results of the research show that use of “Betaviton” preparation improves organoleptic characteristics of the ferment and the product with it by reducing the content of low-molecular fatty acids responsible for the demonstration of specific characteristics in goat milk products. The use of the “Betaviton” preparation contributed to the change in the product’s color (from white to white with a yellowish tint), the formation of a moderate level of titrated acidity and an increase in the number of useful starter population. This approximates commodity characteristics of goat’s curd cheese to the requirements of a product made from cow’s milk, which is positively perceived by consumers.

Keywords: ”Betaviton” preparation, ferment, curd cheese, goat milk, betacarotene, fatty acids.