

PHYSICO-CHEMICAL CHARACTERISTICS OF BIO YOGHURTS BASED ON GOAT'S MILK

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Goat breeding is a branch of traditional animal husbandry in the Republic of Kazakhstan. The development of this industry is due to the presence in the republic of mountainous (7.2 million hectares), stony (18.2 million hectares) pastures and great demand in the market for goat breeding products.

Goat milk is an exceptional food with high nutritional value, easy digestibility and hypoallergenicity. Therefore, an urgent issue on the market is to increase the number of products made from goat's milk.

The purpose of the research work: to analyze the physico-chemical parameters of bio yoghurt samples obtained on the basis of goat's milk.

As an object of study, samples of goat's milk were obtained from the farm "Erbol", located in the village of Samsy, Zhambyl district, Almaty region. In laboratory conditions, yoghurt samples were prepared in two versions with the addition of Lactoferm Eco "YogurtSimbio" starter culture and "Bifidonorm" starter culture with a complex of bifidobacteria to the milk samples.

No. 1 - bio-yogurt prepared with the starter culture Lactoferm Eco "YogurtSimbio", consisting of a symbiosis of lacto-, bifido- and propionic acid bacteria;

No. 2 – bio yoghurt made from Lactoferm Eco "Bifidonorm" starter with a complex of bifidobacteria.

Physico-chemical analyzes of the obtained samples of fermented milk products were carried out in the laboratory of the Department of Food Biotechnology, Almaty Technological University.

Determine titratt and active acidity according to GOST.

Important physico-chemical indicators of fermented milk products include its titrating acidity and active acidity. In the course of the work, the titratable acidity and active acidity of the bio yogurt samples obtained on the basis of goat's milk were revealed, the results are shown in Figures 1.2 below.

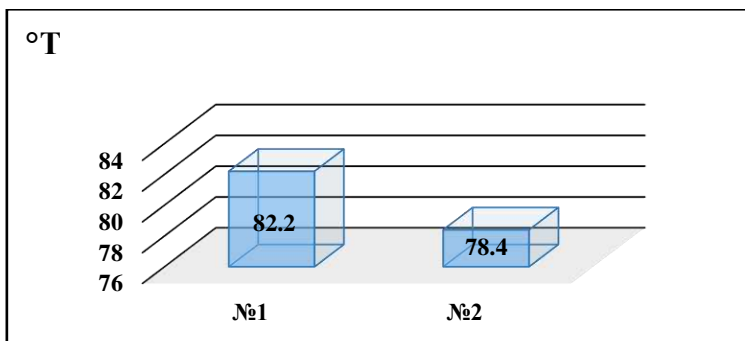


Fig. 1. Acidity titration of bio yoghurt samples

The accumulation of lactic acid in milk indicates a high activity of lactic acid bacteria that use milk sugar in fermentation reactions. In this experiment, the acidity of titration of bio yoghurt samples No. 1 and No. 2 was in the range of 78.4-82.2, which corresponded to the norm (75-140 °T) in accordance with the requirements of GOST 31981-2013.

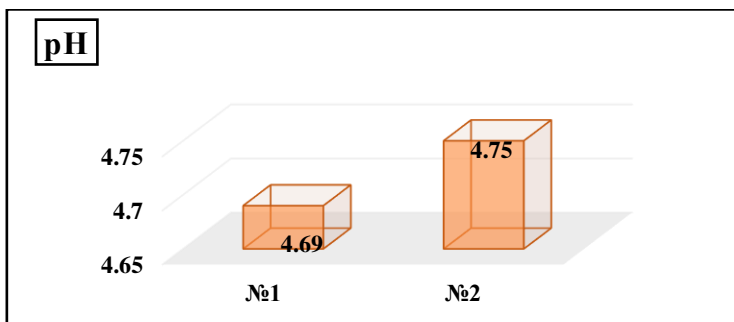


Fig. 2. Active acidity of bio yoghurt samples

From the results in the figure, it can be seen that in sample No. 1 the pH value was 4.69, and in sample No. 2 of bio yoghurt, the pH value was 4.75.

In conclusion, it was shown that with the help of ready-made starter cultures from goat milk, it is possible to obtain fermented milk products, the organoleptic and physico-chemical parameters of which meet the requirements of the standard, and to increase the range of goat milk products.