

MICROBIOLOGICAL INVESTIGATION OF EDIBLE ACID CASEIN

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Summary. The number of microorganisms in edible acid casein might increase if the hygiene is not observed during packing or storing casein products in inadequate conditions. Microbiological investigations of casein covered the following: total bacteria count, thermophilic bacteria, coliforms, *Salmonella* spp., *Listeria monocytogenes*. One hundred and sixty eight edible acid casein samples (each sample of 200 g) were randomly selected in the carried out experiment. The experiment included two stages, where samples were taken 16 hours after production and 6 days after production of casein, respectively. The results of our investigations show, that the enlarged bacterial contamination, which exceed the limit value of 3.0×10^4 CFU/g was identified in 3% of the analysed casein samples. Decrease in total bacteria count was observed in casein, when the samples were taken 6 days after production of the investigated casein. The mean value of casein total bacteria count in the first stage of investigations was increased and thermophilic bacteria in the analysed samples amounted to 0.62×10^3 CFU/g. Percentage of this group of bacteria was approximately 24.2% of total bacteria count. The mean value of thermophilic bacteria in total bacteria count was statistically significant ($p < 0.001$). After the repeated investigations to 80% of samples, total bacterial contamination was decreased. The results of repeated samples and related to the initial results were statistically significant ($p < 0.001$). The experiment proved that 20% of casein samples had decreased presumable number of coliforms microorganisms.

Key words: edible acid casein, microorganisms.