

## **RESEARCH ADHESIVE PROPERTIES OF STARTER FOR PRODUCTION OF FUNCTIONAL FOOD – COTTAGE CHEESE**

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At the end of 1980s, new tendency in the food industry, based on production of functional food, had been appeared and developed in the world. This term means systematic use of products of a natural origin which are capable to normalize and regulate separate functions and biochemical reactions both certain bodies and systems, and an organism as a whole. Today among them starters for preparation of cultured milk products in house conditions are wide popular. In the Ukrainian market it is possible to meet starters of such trademarks as "VIVO", "GoodFood", «GENESIS". The main indicators of quality of starter are activity that is controlled by fermentation duration and acidity, purity of starters and a ratio between cultures (qualitative and quantitative structure), existence of foreign microflora, organoleptic indicators of a clot.

The aim of this paper was to study of adhesive properties of the microorganisms which are a part of starts. This indicator isn't included in the standards regulating creation and production of starters, but it is important for determination of efficiency of action of a cultured milk food on its basis as thanks to this property probiotic industrial strains are capable to compete with pathogenic bacteria for binding receptors. Therefore, the criterion of selection of starters forming part of functional food, for their effective action, except high antagonistic properties, should be evaluation of indicators adhesion. As object of research bacterial starter "Cottage Cheese VIVO cultured milk products" of the trademark "VIVO" was chosen. Adhesive properties were studied using an express method on human erythrocytes as universal model of cells of a macroorganism. Adhesive properties of cultures were estimated on the average value of adhesion (the average quantity of microorganisms attached to one erythrocyte at calculation not less than 25 erythrocytes, considering no more than 5 erythrocytes in one field of vision), and the index of adhesiveness of microorganisms (average quantity of microbic cells on one erythrocyte, participating in adhesive process).

Study of adhesion of microorganisms of starter "Cottage Cheese VIVO cultured milk products" showed existence low- and the medium-adhesive strains. This fact shows that producers don't consider ability to adhesion of microorganisms under designing starters for production of cultured milk products that allows recommending this criterion as a necessary under selection of starter strains.