STUDY BACTERIAL STARTERS USED IN THE PRODUCTION OF FERMENTED MILK PRODUCTS

Kulyk R.V., Kalyuzhnaya O.S., Strilets O.P., Strelnikov L.S. The National University of Pharmacy, Kharkiv, Ukraine biotech ukrfa@mail.ru

It is difficult to overestimate the role of dairy products (fermented milk products, FMP) in human nutrition. They are among the most important components of a balanced diet and bioactive substances for the prevention and treatment of various diseases. FMP have great importance for babies and for older age groups, especially the weak, suffering from gastrointestinal and other diseases. In recent years in Ukraine bacterial starter cultures, on which at home you can produce delicious and healthy products (kefir, yogurt, cottage cheese, sour cream, etc.), have become very popular. The value of such products is very important for Ukraine, in which a significant portion of the population lives in ecologically unfavorable regions, works in conditions of poor and unbalanced nutrition, and are under harmful physical and other detrimental effects. Therefore, the aim of our study was to investigate the effectiveness of domestic bacterial starters "Yogurt VIVO" and "Acidolact VIVO", as functional food products.

Composition of starters is studied by using differential diagnostic method of Gram's stain. The microscopic preparations which are received show the presence of lactic acid cocci and rods. The next step was to study microflora antibiotic resistance of ferments using the disk diffusion method. The results of the study showed that the microflora of ferment "Acidolact VIVO" is stable to all the studied antibiotics. The microflora of ferment "Yogurt VIVO" is undersensitive to tetracycline, sensitive to bacitracin and highly sensitive to oleandomycin and erythromycin. These results confirm the possibility of using information about the FMP on the basis of the ferment "Acidolact VIVO" during antibiotic therapy. Whereas the drinks based on "Yogurt VIVO" are recommended to use after the therapy completion to restore the normal microflora of the gastrointestinal tract of humans. The following step was to prepare the FMP yogurt and acidophilus milk according to the manufacturer's instructions, and to control their organoleptic and physico-chemical parameters. The results show the correspondence of the indicators to standard values. Although it should be noted that for Acidolact has a sourer taste which is the result of formation of larger amounts of organic acids during the fermentation. Thus, we see that the application of the FMP based on the bacterial starter cultures is an effective method of prevention and treatment of dysbiosis occuring as an accompanying factor of using antibiotics in the treatment of infectious and inflammatory diseases.