



SEARCHING FOR PROBIOTICS IN TRADITIONAL MONGOLIAN FERMENTED MILK PRODUCT

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ABSTRACT

Food preservation through fermentation is an old process that, in addition to prolonging the shelf life of the fermented food, has historically provided a significant supply of nutrients and health-promoting ingredients in the human diet. Several indigenous fermented beverages have been used in Mongolia since ancient times and are still used for ceremonial purposes. The production of these beverages consists of milk and milk products produced by livestock animals, which are used as a substrate by microorganisms during spontaneous fermentation. Airag is one of Mongolia's traditional fermented milk products, which is made by fermenting horse (mare) milk. However, a literature review revealed a lack of research on probiotics in this product. Our aim was the identification and characterization of the potentially probiotic lactic acid bacteria (LAB) from two different types of Mongolian traditional fermented horse milk (Airag) from two different sellers in Tuv and Bulgan provinces. We isolated 27 different types of bacterial colony samples from airag. Identification was made by using culture and PCR-sequencing techniques and probiotic characteristics were investigated by gastrointestinal survival tests and biofilm formation capacity.

Keywords: Probiotics, Mongolian traditional fermented horse milk (Airag), Lactic Acid Bacteria (LAB), Probiotic potentials