UTILIZATION OF LACTIC ACID BACTERIA AND PROBIOTICS ON MEAT PRODUCTS

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Abstract

Worldwide, there is an increasing consumer demand for healthy and safe meat products. To meet that growing demand, attention has been directed to the use of fermented meat products as food carrier for probiotics. Probiotic meat products are a fairly new and not very well recognized in food market. Identifying a single or a mixture of probiotic bacteria that inhibit the growth of spoilage and pathogenic bacteria is of growing interest for research to improve the shelf life and safety of the meat products.

Research results indicate that fermented meat products such as sausage can be manufactured using probiotic starter cultures. Some studies describe the behavior of previously selected probiotic strains for their use in fermented sausages production or the potential probiotic use of some selected strains present in commercial meat starter cultures. Many scientists have proposed the use of probiotic lactic acid bacteria (LAB) isolated from fermented sausages which are harbors high numbers of LAB. According to studies, fermented sausages are dominated by LAB, represented mainly by *Lactobacillus sakei, L. curvatus, L. plantarum* and by coagulase-negative cocci. In the technological process of probiotic meat products, research results revealed that it is important to enhance the desired bacteria count while inhibit spoilage and pathogenic bacteria. It is demonstrated that probiotic bacteria also contribute to the decrease cholesterol level by deconjugation of bile salts and facilitate absorption of calcium, iron, and zinc. Therefore, previous studies emphasized that the choice of appropriate microorganisms is important to create meat products with beneficial health effects. Even though several approaches have been attributed but most of study results are preliminary to be able to draw solid conclusion about the effect of probiotic fermented meats on human health.

This review study presents the potential applications of probiotics in fermented meat products by focusing on the technological challenges, the functional effects of probiotics in meat system and the researches that address the addition of probiotics in fermented meat products.

***Key words**: Lactic acid bacteria, Probiotics, Meat products.*