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## **PRINCIPLES OF THE DAIRY PROCESSING CORRELATED TO FOOD SAFETY OBJECTIVES**

Food security is one of the main problems in the food industry, there is always concern about the occurrence of food borne diseases among producers, consumers and regulators.

Over the last decade, numerous outbreaks of food borne illness have emerged. The situation regarding acute diarrheal diseases in the Republic of Moldova is also considered unfavorable. About 20,000 cases are registered annually, including 10-20 deaths in children under the age of 5. The main cause of acute diarrheal diseases and food poisoning is the use of food contaminated with microbial pathogens, toxins or technogenic components. Food pathogens (*Clostridium botulinum*, *Staphylococcus aureus*, *Campylobacter jejuni*, *Bacillus cereus*, *Listeria monocytogenes*, *Cryptosporidium*, *Escherichia coli*, etc.) are the main concerns regarding the safety of food in general and dairy products in particular.

Various processes are used to manufacture safe dairy products, such as heat processing, decreasing water activity, packaging, irradiation, processing at high pressure or in high intensity pulsed electric field, addition of synthetic preservatives, etc. Currently, research is focused on identification natural preservatives as an alternative to synthetic ones, to meet consumer requirements through safe and healthy foods.

Vegetable raw materials (herbs, spices, fruits, vegetables and seeds), in particular extracts and volatile oils obtained from them, have been shown to be natural preservatives with significant inhibitory activity against major pathogens and spoilage microorganisms in dairy products.

However, there are many technological challenges that need to be met in order to develop safe dairy products with the addition of plant products, such as developing new procedures for optimized extraction of bioactive components from plant raw materials, studying the compatibility of extracts with different food matrices for growth. their antimicrobial effect.