

## UNIVERSIDADE FEDERAL DE VIÇOSA CENTRO DE CIÊNCIAS EXATAS E TECNOLÓGICASDEPARTAMENTO DE TECNOLOGIA DE ALIMENTOS



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# ALTERNATIVES IN THE FERMENTED MILK SECTOR AIM TO BREAK THE COLD CHAIN

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The fermented milk market has a high potential for the development of new products, mainly because it is related to health and practicality in consumption. These foods can be classified according to their composition and types of microorganisms present. A limiting factor in its distribution is the short shelf life and dependence on the cold chain. This is because these dairy products, in addition to having live microorganisms and having a high nutritional density, have intrinsic parameters such as pH and water activity that make them conducive to the development of some spoilage microorganisms. Cold chain management is characterized by the activities of handling, transport, storage, packaging, movement, and maintenance of the qualitative properties of temperature-sensitive products. The biggest aggravating factor about its maintenance is the high cost of implementation, and easy breakage, whether due to problems in the distribution or even exposure at points of sale. An alternative to breaking the dependence of dairy derivatives on the cold chain is drying. The reduction in the amount of water contributes to greater preservation of fermented mimicking in addition to facilitating their transport and accommodation, due to the reduction of product mass; Another great economic advantage obtained is the reduction in energy costs since it does not need to be kept at refrigeration temperatures. The trends in the development of new technologies to obtain dehydrated products have increased in recent years and different technologies have been validated to obtain a product that maintains the characteristics of the natural product. A limitation of dehydration is the application of temperature, which, depending on the nature of the raw material, can lead to nutritional loss; therefore, it is essential to use strategies that reduce the dehydration temperature and at the same time allow us to obtain a product with acceptable attributes.

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