

TAL 797 – Seminário

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Bacteriophages as biocontrol strategies

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Bacteriophages are microorganisms ubiquitous and inoffensive to humans, although they provoke bacterial lysis and death in different matrices. Historically, bacteriophages have been used for the prevention and treatment of infected wounds, what has been now stimulated considering the context of the emergence of resistant microorganisms in health facilities. On the other hand, in the food industry, they were originally associated with technological problems, such as yogurt and salami fermentation failures, for example. Currently, however, bacteriophages have been increasingly seen as an alternative for the control of microbial population in food matrices and equipment. Thanks due to their specificity, resistance and ability to replicate and adapt to resistant bacteria. These characteristics have led to the development of researches and commercial products based on phages, some of which are already approved for use by the food industry, as ListexTMP100, SalmonalexTM, ListShieldTM among others. Thus, the use of bacteriophages has been shown to be an alternative to other techniques of microbial control, and may even be claimed as a substitute since they do not alter the sensory characteristics of foods and are considered natural additives, in accordance with the consumer's appeal. However, regulatory issues hurdle the approval and registration of those products, specially in Brazil.

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