

Made-in-transit in yoghurt processing: a review of basic concepts and technological implications

ABSTRACT

The manufacture of food during distribution, a concept known as “made-in-transit” (MIT) manufacture, has the potential to expand the distribution range, extend shelf-life, and provide the customer with the freshest possible product. Benefits for the manufacturer include maximising throughput while minimising manufacturing space and inventory. This concept is new, with mushrooms being the only MIT food developed so far. The feasibility of developing an MIT product from a fermented food was re-viewed using yoghurt as a model system. Through the alteration of some of the yoghurt manufacturing parameters (e.g. milk base formulation, heat treatment, starter culture composition and fermentation temperature) it is possible to develop this form of yoghurt production. A predictive microbiology approach is suitable for predicting the effects of both time and temperature on designing and predicting the fermentation process. This review demonstrates the potential of the MIT concept for a fermented food.

Keyword : Made-in-transit (MIT); Fermentation; Yoghurt; Predictive microbiology