

Microencapsulated probiotics utilisation in dairy foods

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Probiotics dairy foods are very popular among the consumers for their health aspects beyond the palatability. Due to their promising health beneficial effects, they have been incorporated into a wide range of products. But, the viability of probiotics in fermented dairy foods as well as in gastrointestinal conditions is in very minimal level, which has encouraged various researchers to develop innovative methods to improve the viability of probiotics. Microencapsulation of probiotics is one of the approach currently receiving considerable attention. Micro encapsulation is an inclusion technique for entrapping bio-active compound such as probiotic bacteria, folic acid and enzymes into a polymer matrix that may be coated by one or more semi-permeable polymers, by virtue of which the encapsulated substance become more stable than the free one. Microencapsulation of probiotic bacteria can be used to enhance and improve the viability during processing and also in gastrointestinal tract. It is the versatile technology which offers great potential for the application in dairy industry. This technology promises to preserve the sensory attributes like flavour, body and texture in the product incorporated. It can be used to produce starter cultures with higher viability, controlled release of flavour enhancing enzymes to accelerate cheese ripening and improved stability of final product during processing. Microencapsulation technology can be used to maintain the viability of probiotic bacteria during food product processing and storage. New prospects can be explored, using encapsulation technology for preparing probiotics products with greater shelf life, superior and more acceptability in the modern consumer market.

Biography

Vivek K. Bidarkar has completed his PG from Sri Venkateswara Veterinary University. He is well versed with instruments: Lyophilizer, Fermenter, Refrigerated centrifuge, Rotary evaporator, Clinical analyzer and Micro-encapsulator, well versed with Probiotic bacterial culturing, Fermentation, Encapsulation of probiotics. He has published online papers and has attended seminars and conferences.

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