**Probiotic Manufacturing Process**

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Probiotics are living microorganisms that, when consumed in sufficient quantities, provide health benefits to the host. This definition highlights the following five critical points: are microorganisms that must be alive, delivered in adequate quantities, and provide health advantages. Several requirements must be satisfied in order to properly convey probiotic advantages to the customer. We explore the often-overlooked challenges of producing the strains and putting them into consumer items that supply the needed dosage at the end of shelf life. A complex manufacturing procedure is necessary to achieve high yield and stability, as well as to fulfill requirements such as the lack of certain allergies, which limits some apparent culture medium elements. Reproducibility is essential for maintaining consistently high performance and quality. To achieve this, quality control is required throughout the whole manufacturing process, from raw materials to the finished product, as well as documentation of this quality control. Probiotic lactic acid bacteria and bifidobacteria have traditionally been added to fermented dairy products with a short shelf life and refrigerated storage. Probiotics can now be found in dietary supplements and other "dry" food matrices that are predicted to last up to 24 months at room temperature and humidity. With the correct production method, product formulation, and strains, high-quality probiotics may be effectively integrated in a broad range of delivery forms to meet the needs of consumers.

Keywords: probiotics; Lactobacillus; Bifidobacterium; manufacturing; strain stability