SYMBIOTIC RICOTTA DEVELOPMENT BY EXPERIMENTAL APPROACH


Ricotta is obtained from whey proteins precipitation by contact with heat and acids. Its production is a viable alternative in the environmental and economic aspects for the dairy industry, because it allows the development of a quality product besides reducing the subproducts generation. Therefore, the aim of the present study was to develop and evaluate the characteristics of different formulations of functional ricotta, added to probiotic cultures of *Lactobacillus acidophilus* and *Bifidobacterium* spp. and polydextrose like prebiotic fiber. It was used a $2^2$ factorial experimental approach, including three center points, resulting in seven different formulations of ricotta. The acidity values ranged from 0.7 to 0.9% for first day and on day 21st there was a variation from 0.7 to 0.8%. On the 1st day of ricotta manufacturing the pH ranged from 4.5 to 4.9 and at day 21st the values ranged from 4.4 to 4.5. Comparing the pH of each sample from 1 and 21 days of storage reduction it was observed. It occurred due to the continuous production of lactic acid bacteria during storage. The grades attributed by testers during sensorial evaluation on the global attribute impression of ricotta ranged from 5.31 to 6.03 and from 6.06 to 6.51 at 1 and 21 production days, respectively. The results showed that from the conditions of preparation used to ricotta production it is possible to obtain a functional product with prebiotic and probiotic features.