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DEVELOPMENT OF STRAWBERRY FLAVOURED KEFIR BY USING COW'S MILK

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Abstract

The area of functional foods has attracted a great deal of interest since it is now recognized that many foods contain bioactive ingredients which offer health benefits or disease resistance. A subset of functional foods is probiotic foods, from which there are several possible sources of bioactive ingredients. With the expansion of the functional food market, it is clear that there is an important niche for pro-, pre and symbiotic approaches because of the strong commercial interest in providing these supplements to both humans and animals. This gave rise to the idea of using them with fermented foods especially fermented dairy products, the production of kefir is a good example.

A study was carried out to produce fermented milk drink called kefir using a commercial starter culture with the value addition of different flavors to the Sri Lankan market. The raw cows' milk was standardized, homogenized and pasteurized. The milk was cooled to 25⁰C and the 5% (w/v) freeze – dried kefir starter culture was inoculated at 25±1⁰C, and the milk was agitated for 15 min. It was incubated for 18-24 hours for fermentation to set the kefir consistency and stored for 10 days at 5⁰C. After fermentation, physical, chemical and sensory characteristics of the sample were assessed and possibility of using different flavour in kefir production was investigated.

Final product sample were evaluated for organoleptic properties by 30 panelists using 5 point hedonic scale. The sample with 10mg/kg colour and 0.003% flavour was selected as the best. Developed product was analysed for crude protein, fat, ash, and total solids and the results were 3.3% protein, 3.45% of fat, 0.7% of ash, and 22.8% of total solids. The product was analyzed for pH, acidity, viscosity and total colony count over a period of 10 days. The product shelf life can be extended up to 10 days under cold room storage where maintained at 4 ±1⁰C. The product can be claimed as probiotic in terms of that the total colony count has remained above the 10⁶ level at end of the shelf life.

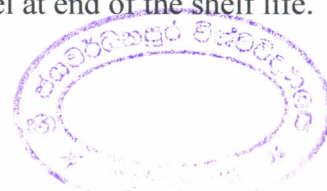


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