

PREBIOTICS FORTIFIED WITH FRUIT JUICES-A GOOD CARRIER FOR PROBIOTICS

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ABSTRACT

The need of the hour is to develop a beverage with health benefits beyond their nutritional value. In wider context beverages that are, or are perceived to be, “better for you”, i.e. functional and fortified. The study was conducted to develop a probiotic millet milk beverage fortified with different blends of pineapple juice using following ratios (Millet milk: Pineapple Juice) 90:10, 80:20, 70:30, 60:40, 50:50. Proximate composition revealed that the moisture content in the end product was $90.6 \pm 0.3\%$ to $98.2 \pm 0.3\%$ whereas protein ranged from $1.617 \pm 0.001\%$ to $1.365 \pm 0.001\%$, fat $0.077 \pm 0.001\%$ to $0.278 \pm 0.01\%$, crude fiber $1.06 \pm 0.001\%$ to 1.00 , ash content $0.268 \pm 0.005\%$ to $0.465 \pm 0.001\%$ and non reducing sugar $0.48 \pm 0.10\%$ to $0.9 \pm 0.05\%$ in different blends. The pH ranges from 3.55 ± 0.3 to 4.06 ± 0.4 and total viable count 1.04×10^8 cfu/ml to 2.78×10^8 among all blends. The blends T3, T4 and T5 were selected as the most preferred treatments among all blends based on nutritional as well as sensory point of view and could be stored at a minimum period of 30 days at 4°C , without any significant changes in quality. Summarily, results suggested that potentially symbiotic beverage presents suitable physicochemical parameters and supports the growth of LAB as it contains cell viability above the minimum recommended for a probiotic product (6 Log_{10} cfu/ml based on a daily dose of 100 ml).

KEYWORDS: *Functional Beverage, Millet Milk, Probiotic Beverages, Product Development, L. plantarum*

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