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Evaluation of Quality Parameters of Low Alcoholic, Self Carbonated Fermented Beverage

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Abstract: A pure yeast isolate from whey beverage, phenotypically characterized and D1/D2 domain of 26S rRNA and Internal Transcribed Spacer (ITS) region sequenced, was identified as *Clavispora lusitaniae*. A technology to produce low alcoholic self carbonated beverage with this yeast was developed. It is a reliable, controllable, reproducible technology to safeguard interest of horticulturists during seasonal glut of the fruits. The freshly prepared fermented carrot-amla (*Emblica officinalis*) beverage (1:1) had TSS 16°B, pH 3.5, acidity 0.36 per cent, brix acid ratio 44.44, ethanol 0.3 per cent,CO_2 0.9 bar and viable cell count was $1.5x10^7$ cfu ml^{-1}. Physico-chemical changes recorded after three months of storage at refrigerated temperature revealed TSS 11°B, pH 3.3, Brix acid ratio 25, acidity 0.44 per cent, ethanol 1.0 per cent, CO_2 1.5 (bar) and viable cell count (cfu ml^{-1}) was $9.5x10^8$ cfu ml^{-1}. CO_2 so produced is antimicrobial, adds effervescence sparkle, tangy taste to the beverage. On the basis of organoleptic evaluation, the beverage was adjudged the best with highest sensory quality and shelf life of three months

Key Words: Beverage, Low alcoholic, Self carbonated, Yeast