Standardization of fermentation conditions for production of fruit wine from Jamun

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Fruit wines are un-distilled alcoholic beverages which are made from various fruits such as jamun, grapes, peaches, plums etc. Wine as fruit based fermented and un-distilled product contains most of the nutrients present in the raw fruit. The nutritive value of wine is more due to release of amino acids and other nutrients by yeast during fermentation. The jamun fruits *(Syzygium cumini)* are used to make wine due to its short shelf life and availability period.

Moreover, jamun fruits are also rich source of antioxidants, anthocyanin, phytochemicals and polyphenols so have numerous health benefits. It is effective in the treatment of diabetes mellitus, inflammation, ulcers and diarrhea. The aim of present work was to develop a healthy fermented drink by using two jamun varieties Desi (local) and Raw with four different yeast strains of *Saccharomyces cerevisiae* (D7,11815, A2, PY1). Two different must types T1 (jamun juice), T2(jamun juice with pulp & seed powder) were prepared and fermentation of the above treatments at lab scale (300ml) were optimized w.r.t Brix (18^{o}B), inoculum size (5%) & diammonium hydrogen phosphate (100mg) (by Response Surface Method) using selected strain of yeast (D7). The prepared samples were analysed for reducing sugars, total sugars, titrable acidity, total soluble solids (TSS), pH, anthocyanins, polyphenols, tannins and in vitro antioxidant potential. The selected jamun wine were bottled and studied for different physicochemical parameters, organoleptic analysis and shelf life. All the results obtained were statistically analysed.

Speaker Biography

Amandeep Singh is pursuing MS (Master of Science) in microbiology at Punjab Agricultural University, Ludhiana. His research problem is Standardisation of fermentation conditions for production of fruit wine from jamun. He had completed his Bachelor of Science from the same university in 2016.

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