Microflora and microbial activity in palmyrah (Borassus flabellifer) palm wine in Sri Lanka

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Abstract

Palmyrah palm wine, a traditional mild alcoholic beverage of Northern Sri Lanka, is popularly referred to as 'toddy'. It is obtained by the natural fermentation of the sugary sap of the palmyrah palm (Borassus flabellifer L.). The microflora commonly found in palmyrah toddy were identified as Saccharomyces cerevisiae, Sacch. Chevalieri, Kloeckera apiculata, Schizosaccharomyces pombe, Bacillus cereus, B. sphaericus and B. firmus. Of the yeasts, the predominant and best alcoholic fermenter was Sacch. cerevisiae. The efficiency of alcoholle fermentation in natural palmyrah toddy was 56%. This was increased to 69% by adding a pure inoculum of Sacch. cerevisiae into the toddy collecting pots. A further increase in the efficiency to 89% was attained when fresh, sterilized palmyrah sap was fermented with Sacch. cerevisiae under laboratory conditions.