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### Study on nutritional composition of the toddy obtained from controlled fermentation of padaneer

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Toddy is a traditional alcoholic fermented beverage obtained from yeast fermentation of *padaneer*, a sweet sap collected from the inflorescence of palm. The taste and nutritive components of the toddy varies based on the fermentation that occurs. The present study was done to ferment the sweet sap using an economic filter setup packed with PU foam immobilized yeast instead of the traditional pot method, which led to hygienic controlled fermentation. The toddy samples collected from the setup after regular time intervals of 12, 24, 36 and 48 hours, were subjected to nutritive parameter analysis along with *padaneer* sample. It was found that as the time interval increased the pH reduced from 10.01 to 4.91, the EC increased from 4.07 to 5.06, the titratable acidity increased from nil to 25.83 g lactic acid per litre of the sample, the ethanol content increased from nil to 3.60%, the reducing sugars decreased from 5.30% to 2.70%, the total sugars decreased from 18.00% to 11.20%, the total proteins decreased initially and then stabilised from 0.33% to 0.23%, the amino acid content decreased initially and then stabilised from 0.23% to 0.12% and the phenol content increased from 0.04% to 0.27%. The 12 hours fermented toddy sample had 0.31% ash, 34.8 ppm sodium, 1510 ppm potassium and 25 ppm calcium. This analysis helps in standardizing the quality of both *padaneer* and toddy which are obtained indigenously. Enhancing their nutritive value would make them the best choice of economic drinks in future.

#### Biography

R Arthee Rajendran a native of Thiruchirappalli, Tamil Nadu, India, has completed her Masters in Agricultural Microbiology from Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, India, at the age of 23 years. She has experience as Senior Research Fellow in three schemes namely, Evolving eco friendly recycling techniques and assessing the impact of bio inputs of distillery industries for enhancing soil and crop productivity; NABARD sponsored Lead Crop Programme and Standardization of selected ethnic fermented foods and beverages by rationalization of indigenous knowledge. She is a recipient of 'Best Paper Award' for presenting on the title 'One time controlled land application of treated post bio-methanated distillery spent wash as liquid manure for enhancing soil and crop productivity' and has so far done three poster presentations and five oral presentations in various international and national level conferences. She is currently pursuing a Doctorate in Philosophy in the field of Agricultural Microbiology, at Tamil Nadu Agricultural University, Tamil Nadu, India.

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### Effect of plant growth regulators and spacings on vegetative growth & flower yield of African marigold cv. pusa narangi gainda

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A field study was conducted during 2010 to investigate the effect of plant growth regulators viz., NAA, Ethrel and GA<sub>3</sub> at different concentrations 250 ppm, 350 ppm and 450 ppm and at different spacings 30 × 20 cm and 40 × 20 cm on vegetative growth and flower yield of African marigold cv. Pusa Narangi Gainda. The results revealed that GA<sub>3</sub> and NAA had promotive effect on vegetative character like plant height. Ethrel suppressed plant height and enhanced plant spread and number of laterals. GA<sub>3</sub> at 350 ppm advanced flowering, increased flower diameter and flower yield. Ethrel at 350 ppm increased number of flowers per plant and reduced flower diameter and flower weight. Among spacings, 30 × 20 cm enhanced plant height, inter nodal length and reduced plant spread, number of laterals, number of flowers, flower weight,

flower size and yield per plant. Spacing of 40 × 20 cm enhanced the flower size, fresh flower weight, number of flowers and flower yield.

#### Biography

P Ashok has completed his Ph.D. at the age of 26 years from Indian Council of Agricultural Research, Pusa, New Delhi. He is working as Scientist in AICRP on Tuber Crops, HRS, Dr. YSRHU, Venkataramannagudem. He has published more than 20 papers in reputed journals.

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