Studies on the Physico-chemical characteristics and organoleptic aspects of the cashew apple varieties in the Batticaloa region

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Three varieties of Cashew apple (*Anacardium occidentale*) var. (Trinidad, Ullal and Batticaloa) that are abundant in the Batticaloa region were selected in this study. Ten fruits from each variety were randomly selected to evaluate the physico-chemical characteristics and organoleptic quality. The physical characteristics such as fruit weight, size of the fruit and juice yield and the chemical characteristics such as titrable acidity, total soluble solids, pH and ascorbic acid content were evaluated for each variety. The organoleptic quality such as taste, flavour and overall acceptability of the juices were evaluated by a panel of 15 judges from the Eastern University. The scores obtained from the organoleptic evaluation were statistically analysed (Tukey's test). The significance was observed at $P \leq 0.05$ for each sensory criterion.

The juice yield was calculated from the weight loss of the apples after the juice extraction and was found to be high (72.9%) in variety Trinidad (red skin) and low in variety Batticaloa (yellow skin). The variety Trinidad showed high ascorbic acid content of 286.23 mg/100 mL and the least was found in variety Batticaloa 248.95 mg/100 mL. The total soluble solids, Titrable acidity as malic acid and pH were found to be varied among the varieties. The total soluble solids was ranged from 10 to 11 ^{0} Briix and the highest value was recorded in variety Batticaloa. The titrable acidity was ranged from 0.17 g per 100 mL to 0.22 g per 100 mL of juice and the lowest value was found in variety Batticaloa.The taste of the juice from variety Batticaloa was most preferred by the panelists while the least from the variety Trinidad. Although, the flavour and overall acceptability were mostly preferred for variety Batticaloa by the panelists and the flavour was not significantly different for varity Batticaloa and Trinidad at $P \leq 0.05$. From the quality attributes and organoleptic evaluation, it was suggested that the cashew apple of variety Batticaloa is the most preferred with an excellent quality.

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