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COMPARISON OF RIPENING METHODS FOR "KOLIKUTTU"  
(*Musa sapientum* L.AAB group) BANANA

A PROJECT REPORT PRESENTED BY

PUNSISI UPEKA RATNAYAKE  
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to the Board of Study in Chemical Sciences of the  
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for the award of the degree of*

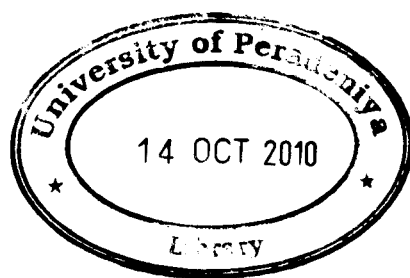
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COMPARISON OF RIPENING METHODS FOR 'KOLIKUTTU'  
(*Musa sapientum* L.AAB' group) BANANA

**P.U. Ratnayake**

Department of Chemistry

University of Peradeniya

Peradeniya

Sri Lanka

In Sri Lanka 'Kolikuttu' banana (*Musa sapientum* L.) an indigenous cultivar, are sold more expensive than those of the other cultivars, due to their pleasing taste. Bananas are ripened artificially by exposing to acetylene gas or ethylene gas. Bananas at 3/4<sup>th</sup> maturity were ripened naturally and artificially by exposing them to acetylene generated from calcium carbide and ethylene released from ethral and analysed after reaching the color 'stage 6'.

Volatiles of the banana ripened naturally and artificially were extracted by steam distillation followed by solvent extraction. Extracted volatiles were analyzed using gas chromatography. Gas chromatograms of each treatment were compared with the authentic standards of amyl acetate, amyl butyrate, butyl acetate and butyl butyrate which were known to be present in banana volatile extracts.

Physico-chemical properties such as % weight loss, total soluble solids, titratable acidity and pH were determined at color 'stage 6'. Physico-chemical properties of naturally ripened banana were not significantly different from the artificially ripened banana. However % weight loss was significantly higher in naturally ripened banana than that of artificially ripened banana.

Sensory analysis was carried out using a 7 point hedonic scale with 30 untrained panelists to assess sensory characteristics such taste, odor, texture and overall acceptability of naturally ripened banana and artificially ripened banana. The results of the sensory evaluation revealed no significant difference in taste, odor, texture and overall acceptability of the naturally ripened banana and artificially ripened banana.