

**PRELIMINARY STUDIES OF UTILIZING MATURE COCONUT
WATER TO PRODUCE LOW COST VINEGAR**



BY

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ABSTRACT

Mature coconut water is a readily available natural extract. But it goes as waste to the environment from houses without any uses. In household level it is not a serious problem, but when considering the large scale coconut industries disposal of waste mature coconut water is a major problem to the environment. An attempt was made to investigate the feasibility to use mature coconut water as raw material to produce low cost vinegar. A questionnaire survey was conducted in the village Kommathurai and also a simple instrument was constructed to produce vinegar. The keeping quality of mature coconut water was analyzed for the samples collected from different locations in Batticaloa district at different storage conditions such as, room temperature and refrigerated condition.

Sugar concentration of mature coconut water is too low. This study also attempted to find out the correct amount of sugar concentration to be added with mature coconut water to produce vinegar and this was compared with different types of vinegar available in the market in terms of acidity, price and sensory characters.

The mature coconut water samples stored at room temperature was found spoil after one day of storage and there were significant differences between the treatments and the days of storage for titrable acidity, Total Soluble Solids, Electrical Conductivity and total sugar at 5% significance level. This analysis also showed significant differences between the treatments and days of storage under refrigeration. Nevertheless, mature coconut water can be stored without any changes in texture, colour and odour over the study period of 25 days under refrigerated condition.

In the village Kommathurai, 32 % of families are interested to produce vinegar using the available coconut water, and also 82.075 liters of mature coconut water are

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