

DEVELOPMENT OF A JELLY PRODUCT USING KESI-PISSAN (*Cyclea burmanni*) LEAF EXTRACT

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By

**HERATH MUDIYANSELAGE CHINTHANI NIRMANI
HERATH**

**Faculty of Animal Science and Export Agriculture
Uva Wellassa University**

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ABSTRACT

Kesi-pissan [*Cyclea burmanni* (syn. *Clypea burmannii*,)] is a vine belongs to family Menispermaceae, which the leaf extracts has the ability to produce an edible gel. Kesi-pissan vine is distributed in Indian sub-continent region. In Sri Lanka this vine can be seen in wet zone (Wijesinghe, 1994). *Cyclea burmanni* has many important medicinal properties. The gel produced by Kesi-pissan leaf extract has being traditionally used by local people as a food. In indigenous medicine this gel has being used specifically to cure gastritis and also to give coolness to the body. This plant has stimulating and expectorant properties and is used as a diuretic. It has the ability to generate sperms, generate breast milk and has anti-infertility properties (Wijesinghe, 1994).

In this research a jelly product has being developed by incorporating fruit pieces in to *Kesi-pissan* leaf extract.

Physicochemical properties such as pH value, total soluble solids (Brix value), total titratable acidity, moisture percentage, ascorbic acid content for the jelly product under ambient condition and refrigerated condition were measured at two day intervals within a period of nine days. Findings of this study revealed that this product has pH value of 3.1, Brix value of 50, 3.94 mg of ascorbic acid (Vitamin C) content and 80% moisture percentage at the day of preparation and these values are not significantly different during one week storage ($p > 0.05$).

Pectin percentage of the jelly product and Kesi-pissan leaves were determined and those percentages were 10.065% and 10.72% respectively.

pH value, Brix value, moisture percentage and total plate count of jelly stored at ambient temperature (27 °c) and at refrigerated condition were determined for nine days. There is a significant difference between refrigerated product and the product

stored at ambient temperature ($p < 0.05$). Shelf life of the refrigerated product was seven day.

Sensory evaluation revealed that 300 g jelly produced from 150 g of sugar, 0.36 g of citric acid and fresh fruit pieces (T520 treatment) was significantly ($p < 0.05$) superior in majority of sensory attributes compared to other treatments.

Shelf life of the jelly product can be increased by adding synthetic preservatives such as Sodium benzoate and Sodium meta-bisulfite and more variations of flavor can be introduced by adding different types of fruit pieces. More scientific studies regarding the medicinal and nutritional value of the product must be done in the future.

Key words: Kesi-pissan, jelly, storage, pectin, Physicochemical properties, Sensory evaluation