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**PRESERVATION OF A READY TO SERVE FRUIT
DRINK WITHOUT USING PRESERVATIVES**

By

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Abstract

The fruits of mango, pineapple, papaya and oranges occupy a prominent position among the fruit crops grown in Sri Lanka, providing essential minerals and vitamins in the human diet. Moreover, the ripe fruits are priced for its excellent taste and medicinal properties. However, marketing of fresh fruits are a great problem because of its short postharvest life, which leads to high post harvest losses of 30-40%. Several conservation techniques have been used to preserve fresh fruits and development of ready to serve fruit drinks has been found to be effective method. However, the prevailing preservation methods for Ready to serve fruit drinks are based on chemical preservatives, which are reported as health hazardous. Hence the research was conducted to develop methodology for preparation of ready to serve fruit drinks without using chemical preservatives.

Preliminary experiment was conducted to find the suitable time temperature combination for preservation of ready to serve fruit drink. As treatments, pasteurization at 95°C for 5 minutes, 100°C for 30 seconds, 100°C for 5 minutes and 100°C for 15 minutes were prepared. The control treatment was prepared with using preservatives and the effectiveness of the treatments was determined by measuring the physico-chemical, microbiological and organoleptic properties in one-week interval for one month. Main experiment was conducted to determine the shelflife of developed product with comparison to chemically preserved control sample. Based on

the physico-chemical, microbiological and organoleptic properties, the shelflife of the developed product was determined.

The change of physico-chemical, microbiological and organoleptic properties of the ready to serve fruit drinks prepared by pasteurizing at 95 °C for 5 minutes, and control treatment showed similar pattern with the storage period and not significant each other. The results revealed that the ready to serve fruit drink prepared by pasteurization at 95 °C for 5 minutes can be preserved without using chemical preservatives for three months.

Table of content

	Page No
Table of content.....	i
List of tables	iv
List of figures.....	v
Acknowledgement.....	vi
Abbreviation.....	vii
Abstract.....	viii
CHAPTER 1	
1.Introduction.....	01
1.1 Objectives.....	02
CHAPTER 2	
2. Literature Review.....	03
2.1 Importance of fruits.....	03
2.2 Post harvest losses of fruits.....	08
2.2.1 Loss of food value in fresh produce.....	08
2.2.2 The principal causes of post harvest losses	08
2.3 Types of micro-organisms which can grow on foods.....	09
2.3.1 Harmful microbes which can be found in fruit drinks.....	10
2.3.1.1 E.Coli.....	10
2.3.1.2 Salmonella.....	11
2.4 Fruit preservation.....	11
2.4.1 Thermal processing.....	11
2.4.2 Pasteurization.....	13
2.4.3 Chemical preservation	
2.5 Packaging material for RTS.....	19

CHAPTER 03

3. Materials and methodology

3.1 Materials & Equipments.....	20
3.2 Methodology.....	20
3.2.3 Preliminary experiment.....	22
3.2.4 Main experiment	23
3.3 Physico - chemical Analysis	23
3.3.1 Total soluble solids.....	23
3.3.2 Titrable acidity.....	23
3.3.3 Colour	24
3.4 Microbiological analysis	24
3.5 Statistical Analysis.....	26
3.6 sensory Analysis	27

CHAPTER 4

4. Results and discussion.....	28
4.1 Results of the experiment 1.....	28.
4.1.1 Physico - chemical Analysis	28
4.1.1.1 Total soluble solids.....	28
4.1.1.2 Colour.....	29
4.1.1.3 Titrable acidity.....	31
4.1.2 Microbial analysis.....	32
4.1.2.1 Total coli form determination.....	32
4.1.2.2 E.coli determination.....	33
4.1.2.3 Yeast and mould determination.....	33
4.2 Results of the main experiment	36
4.2.1 Physico - chemical Analysis	36
4.2.1.1 TSS.....	36
4.2.1.2 Color.....	37
4.2.1.3 Acidity % by mass.....	38
4.2.2 Microbial analysis.....	39
4.2.2.1 Total coli form determination.....	39
4.2.2.2 E.coli determination.....	39