DEVELOPMENT OF PINEAPPLE POWDER BASED PRODUCT

(*Ananas comosus* L.)

BY

THIVANI MAHENDRAVARATHAN

FACULTY OF AGRICULTURE

EASTERN UNIVERSITY

SRILANKA

2007

ABSTRACT

A research was conducted to develop the pineapple powder based biscuits and assess its nutritional and sensory qualities during storage.

Fully ripe pineapples were washed, peeled and thorny eyes were removed. They were sliced lengthwise. Each slice was cut into 2 cm slices, crosswise. Small amount of water with antioxidant (citric acid) was added to prevent discolouration. These slices were placed in a single layer on trays. The oven temperature was maintained at 60°C. Fruit slices were examined and turned frequently around 14 hours, until the slices became leathery and not sticky. These slices were allowed to cool and ground into powder by using blender. This pineapple powder was added in different amounts (3g pineapple powder /100g mixture, 5g pineapple powder / 100g mixture, 10g pineapple powder /100g mixture, 15g pineapple powder /100g mixture) as an ingredient during the preparation of biscuits.

Nutritional analysis was done for fresh fruit, pineapple powder and biscuits for titrable acidity, ascorbic acid content, total soluble solids, total sugars, crude fibre, moisture, protein, fat and ash for weekly interval throughout the experimental period. The declining trend with storage period was observed in ascorbic acid, total soluble solids, total sugars, protein, fat, ash and crude fibre and an increasing trend was observed with storage period in titrable acidity and moisture for all the treatments. Organoleptic assessment was conducted for pineapple flavour, taste, colour, texture, absence of off-flavour and overall acceptance for all treatments.

Nine-point hedonic scale ranking method was used to evaluate the organoleptic properties. The results revealed that, there was significant difference among the

TABLE OF CONTENTS