



A PRELIMINARY STUDY OF VINEGAR PRODUCTION
 FROM PINEAPPLE WASTE

ABSTRACT

INTRODUCTION

by

METHODS AND MATERIALS

ROHINI MANGALIKA SILVA

A. Isolation of vinegar bacteria (Acetobacter)	18
B. Identification of vinegar bacteria (Acetobacter)	
1. Morphological characteristics	19
2. Biochemical tests for identification of Acetobacter	23
C. Selection of strains suitable for production of vinegar	25

550a	49
400a	
200	
100	

Thesis submitted to the
 University of Kelaniya in
 partial fulfilment for the
 Degree of Master of Science
 in Microbiology

ABSTRACT

The bacteria responsible for the conversion of alcohol to vinegar was isolated from different fruit juices and samples of vinegar. This bacteria - Acetobacter aceti was found to be present in many ripened fruits. Isolation was made by following the pour plate technique.

Pineapple waste is readily available from the canneries. The skin of ripe fruits provide a fermentable sugar in a concentration, suitable for vinegar production. In the initial stages of fermentation to alcohol the juice presents difficulties due to its physical properties. During acetification process Anguilla aceti was a problem. Pasteurization helped to remove this and reduced interference from micro-organisms associated with fully ripened pineapple waste. A convenient form of yeast for the alcoholic fermentation was active dried baker's yeast. The pineapple waste wine was acetified by a simple procedure based on the traditional Orleans process to produce a high strength pineapple vinegar. In this acetification process Acetobacter aceti was used.