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PURITY VERIFICATION SYSTEM: MALAYSIA'S HONEY

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ABSTRACT

In this project, a system of purity verification for Malaysia's honey is using Fuzzy Logic Expert System. The system will use the expert knowledge in determining the purity stage of honey. This will include various type of input (pH, mineral, glucose, fructose, sucrose, HMF and Ash) that will be considered in determining the purity. It will be programmed using JAVA programming only.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

Bees Honey is consist of variety mineral content and vitamin such as B6, calcium, sodium, Zink, magnesium, cuprum and others. The scientist property of food science was important to be used in test the purity of honey because there are many useful of honey. Currently, most of the honey was test the purity at the lab. There were many drawbacks in this lab testing such as time consuming where the testing process will take too many time, availability, inconsistency and cost. Purity verification can base on some features such as the color, water determinatioń, liquid chromatography, mineral content and others.

Many of the researchers have done their study on testing to verify the purity of honey. There were many techniques was introduced such as using Karl Fisher (KF) titration method, infrared technique, principal component analysis, cluster analysis and many more. High-performance liquid of honey is one of the most significant inspection criteria related to the quality and purity of honey. In determine the purity; we cannot detect pure honey just by its color. This study will analyze the purity of the honey based on the liquid chromatographic.

The related area on verify the purity of honey based on liquid is ingredients, high-performance of liquid analysis and also artificially intelligence. There were some applications where purity verification systems has been used which using machine vision system, fuzzy logic systems and others.

Nowadays, many people tried to use a web based system for their company usage. They have implemented many of their tasks by implementing it using web based programming.