

UNIVERSITI TEKNOLOGI MARA

**PHYSICOCHEMICAL ANALYSIS OF
PINEAPPLE HONEY**

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Project submitted in fulfilment of the requirements for
the degree of

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(Hons.)

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DECLARATION BY STUDENT

Project entitled ‘Physicochemical Analysis of Pinapple honey’ is a presentation of my original research work. Whenever contributions of others are involved, every effort is made to indicate this clearly, with due reference to literature, and acknowledgement of collaborative research and discussions. The project was done under the guidance of Project Supervisor, Mr. Norhisham bin Haron and and co-Supervisor Dr Zolkapli bin Eshak. It has been submitted to the Faculty of Health Sciences in partial fulfillment of the requirement for the Degree of Bachelor in Medical Laboratory Technology (Hons).

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In The Name Of Allah, the Most Gracious, the Most Merciful

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ABSTRACT

Pineapple honey is a rare type of honey found by Malaysian beekeepers and produced by the European honey bee *Apis Mellifera*. The physical and chemical properties of honey were varied based on their botanical and geographical states which also being used as indicator for honey quality. This study was aimed to investigate the physicochemical analysis of Pineapple honey collected from Kampung Parit Botak, Johor Baharu. Physicochemical analysis of honey was determined using standard methods, International Honey Commission (IHC). The textural analysis of honey was measured by textural analyzer and rheometer. Scanning electron microscope (SEM) was used to identify the source of pollen in Pineapple honey. Based on the Codex Alimentarius Standards and European Standards, the physicochemical properties of Pineapple honey such as the ash content ($0.09\% \pm 0.01$), color intensity (95.49 ± 9.04), electrical conductivity (0.37 ± 0.001 mS/cm), moisture content (14.83 ± 0.67 %), pH (3.49 ± 0.06) and free acidity (47.67 ± 1.45) are within the standard limit. The firmness, consistency, cohesiveness, viscosity, surface stickness and stringness were 29.23 ± 4.24 g, 198.86 ± 25.67 gsec, 8.69 ± 0.05 g, 2340 ± 208.87 mPa·s, 4.21 ± 0.02 g, 13.97 ± 0.08 mm, respectively. Pollen analysis showed the presence of *Ananas cosmosus* as major pollen identified, followed by *Robinia pseudoacacia*, *Asytasia gangetica* and unidentified pollen. Based on pollen frequency classes, Pineapple honey is classified under monofloral honey. In conclusion, the results of physicochemical and pollen analysis revealed that Pineapple honey from Johor Baharu is good in purity and quality.

Keywords: Physicochemical, Pineapple, Honey, Pollen, Textural properties