

C03 Physicochemical properties of selected raw stingless bee honey in Sarawak

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Stingless bee honey, locally known as Kelulut honey, is not commonly exposed to the public when compared to *Apis* bee honey. Recently, the research on stingless bee honey worldwide has become one of the promising fields of study. However, the stingless bee honey industry is still under stagnation due to the limited background knowledge of stingless bee honey, lack of complete quality control standards, and not being regulated by food control authorities. For a start, the evaluation of the physicochemical properties of Sarawak stingless bee honey is important as the identity of the honey samples can be 'fingerprinted', and eventually, bring prestige and increase revenue to Sarawak state. The objective of this research is to generalise better documentation of the physicochemical properties of selected honey samples in Sarawak for allowing better categorisation of stingless bee honey product quality and commercialisation. Hence, several physicochemical properties including pH, moisture content, ash content, total phenolic content and melissopalynological analysis were conducted to determine their botanical origin, purity, and quality. The physicochemical properties of raw Sarawak stingless bee honey varied as follows: pH (3.19 – 3.60), moisture content (26.84 – 33.85) %, ash content (0.08 – 0.32 g/100g) and total phenolic content (187.11 – 331.72) mg GAE/kg. By conducting Melissopalynological analysis, it was revealed that all the honey samples were multi-floral, mainly collected intensively from fruit trees (longan, coconut), vegetables (sweet corn, brinjal), and flower plants (*Mimosa pudica*, *Ixora coccinea*). Hence, this can widen the data bank of stingless bee honey and quicken complete international standards of stingless bee honey to better accommodate stingless bee honey worldwide.