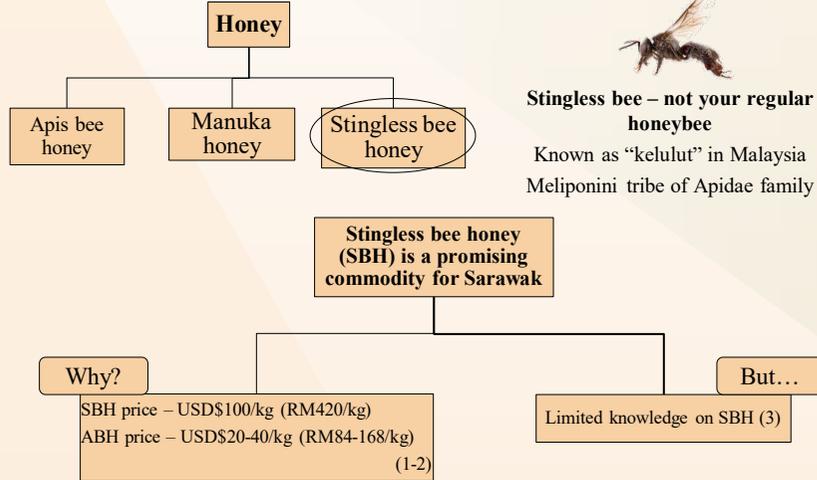


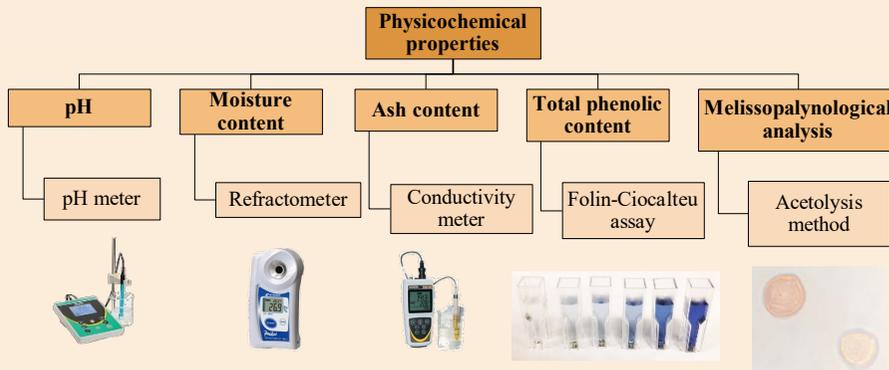


## Introduction



Physicochemical properties		Standard range
pH	Malaysian Standard	pH 2.5 – 3.8
Moisture content		Maximum 35%
Ash content		Maximum 1.0g/100g
Total phenolic content	N/A	
Melissopalynological analysis	N/A	

## Methodology



## Abstract

- Several physicochemical properties (pH, moisture content, ash content, total phenolic content & melissopalynological analysis) were conducted to determine their botanical origin, purity, and quality.
- The physicochemical properties of raw Sarawak SBH 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) mgGAE/kg.
- By conducting Melissopalynological analysis, it was revealed that all the honey samples were multifloral, mainly collected intensively from fruit trees (longan, coconut), vegetables (sweet corn, brinjal), and flowers (*Mimosa pudica*, *Ixora coccinea*).
- This research can widen the data bank of SBH and quicken complete international standards of SBH to better accommodate SBH worldwide.
- Objective:** To generalise better documentation of the physicochemical properties of selected honey in Sarawak for allowing better categorization of SBH product quality and commercialization.

## Results & Discussion



### Depends on

- Bee species
- Botanical sources
- Geographical origin
- Environmental humidity (4)

Physicochemical properties	pH	Moisture content	Ash content	Total phenolic content
Data range	(pH) 3.19-3.6	26.84-33.85 (%)	0.08-0.32 (g/100g)	187.11-331.72 (mg GAE/kg)
Explanation	√ lactic acid fermentation activate microorganisms' survival √ prevent honey spoilage (1)		bio-indicator for inorganic contaminants (5)	Detect phenol compounds & electron-donating antioxidants (6)

Botanical source	Fruit trees		Vegetables		Flower plants	
	Longan tree ( <i>Dimocarpus longan</i> )	Coconut tree ( <i>Cocos nucifera</i> )	Sweet corn ( <i>Zea mays</i> )	Brinjal ( <i>Solanum melongena</i> )	Shameplant ( <i>Mimosa pudica</i> )	<i>Ixora coccinea</i>
Pollen view						

## Conclusion & Further work

- The selected raw stingless bee honey samples in Sarawak fulfilled the standards of the Malaysian Standard.
- Total phenolic content in the selected honey samples showed a high potential for phenolic compounds. Determination of antioxidant activity is needed.
- Melissopalynological analysis revealed that the honey samples were multi-floral, mainly from fruit trees, vegetables and flower plants.

## Acknowledgement

This research is supported by my supervisors, Swinburne University of Technology Sarawak Campus and Sarawak Research and Development Council for financial support in the form of the research grant.

## References

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