

**FATTY ACID PROFILE AS A MEANS OF
AUTHENTICATION OF BEESWAX**

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ABSTRACT

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The objectives of this study were to study the different between fatty acid in beeswax from different geographical location and to determine amount of acid value in each of beeswax. Total seven (7) samples of beeswax each of type were analysed by using Gas Chromatography – Mass Spectrum (GC-MS). The type of fatty acid obtain is palmitic acid and stearic acid. The obtain result of ratio palmitic acid per stearic acid (PA/SA) showed that beeswax from Terengganu have (1.07), beeswax from Cameron highland (1.58), for commercial beeswax (SOAP CELLAR, GREEN HERBALOGY, TAKE IT GLOBAL AND GALORE) has an area ratio (0.84), (0.85), (2.45) and (2.33) respectively. For candle wax the area ratio is (1.14). The highest and lowest area ratio come from commercial beeswax. While for the beeswax the area ratio is average but for the candle waxes the area ratio is quite high maybe when the production of candle waxes there is a mixed with beeswax so that why the area ratio quite high. For the acid value determination beeswax from Terengganu and Cameron highland is highest (28.05mgKOH/g and 30.09mgKOH/g) than others. Candle wax is the lowest amount of acid value (12.75mgKOH/g).

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