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Study the Components of Saturated Fatty acid on Virgin Coconut oil using Gas Liquid Chromatography

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Abstract : This study aims to (1) measure the quality of virgin coconut oil (VCO) such as yield, water content, free fatty acids (FFA), and (2) detect the components of the VCO-forming fatty acid methyl ester profile components such as caprylic acid, capric acid, lauric acid, myristic acid, palmitic acid, stearic acid, oleate acid, and linoleic acid using liquid gas chromatography. The experiments were carried out in the laboratory and in the field at the VCO small business in Kalawat Sub-district, North Minahasa District. Observation variables are (a) the yield test, (b) water content, (c) determination of free fatty acids (FFA), and (d) determination of fatty acid methyl ester profile by GLC to detect caprylic acid, capric, lauric, myristic, palmitic, stearic, oleic, and linoleic, based on the AOAC method, and (e) color determination by sensory difference level method (MCDA method). The results of the detection of methyl esther profile components of fatty acid constituents of VCO in small businesses in Kalawat Sub-district region showed the composition of lauric fatty acids VCO with the highest treatment obtained in VCO small businesses with code A (59,327%), followed by VCO small businesses with code B (58,968%), and small businesses VCO with code C (58.460%). So, the three VCO small businesses in Kalawat Sub-district are of good quality, because they meet the standards determined by Indonesian National Standard (SNI) and even the standards of the APCC (Asian and Pacific Coconut Community).
Keywords : Saturated fatty acids, virgin coconut oil, GLC.

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