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Policy, Commercialization and Innovation**PCI-26****THE OPTIMALIZATION OF MAKING VIRGIN COCONUT OIL (VCO)
THROUGH VARIED COCONUT MILK EXTRATION WHICH
TRADITIONALLY FERMENTED**

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Abstract—This study aim was to determine the optimal yield of Virgin Coconut Oil (VCO) by varying the extraction of traditionally fermented coconut milk. The extraction used were 1). Tap water, 2) The mixture of tap and coconut water, 3) Coconut water. There were several ways of making VCO, namely by means of inducement, centrifugation, and tradition or fermentation. Making VCO through coconut milk fermentation has new information features. So far, the cause of VCO becoming more beneficial was its lauric acid content. However, it was revealed in this study that besides having lauric acid content, the fermented VCO also consisted of lactic acid bacteria containing bacteriocin in it. Bacteriocin is generally defined as a peptide produced by bacteria which can kill pathogenic bacteria, and is harmless to good bacteria. This study was performed into three stages, namely 1) The 1st stage was making VCO by varying the extractor, 2) The 2nd stage was by conducting the analysis of BJ, viscosity, pH, lauric acid content using GC-MS chromatography, moisture content of the VCO produced, and 3) The 3rd stage was carrying out the isolation of lactic acid bacteria using dilution method. VCO where coconut milk was extracted with coconut water alone contained 54.5% lauric acid, pH = 6.5, acid number 1,0165 its saponification 317,8 its lactic acid bacteria 97 isolates, and apparently contained bacteriocin which was capable to kill the pathogenic bacteria E. Coli, Listeria Monocytogenes, Pseudomonas aureginosa, Klebsiella and Salmonella typosa.

Keywords— Lauric Acid; Lactic Acid Bacteria; Virgin Coconut Oil; Bacteriocin; Antimicrobial

