THE COMPARISON BETWEEN THE ANTIMICROBIAL EFFECT OF *Myristica fragrans Houtt* AND *Illicium verum Hook. f.* HERBS BY USING DIFFERENT EXTRACTION METHODS

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ABSTRACT

THE COMPARISON BETWEEN THE ANTIMICROBIAL EFFECT OF *Myristica fragrans Houtt* AND *Illicium verum Hook.f.* HERBS BY USING DIFFERENT EXTRACTION METHODS

The purpose of this study is to determine the effect of *Myristica fragrans Houtt* and *Illicium verum Hook. f.* herbs extract extracted using different extraction methods on the antimicrobial activity towards the Gram-positive and Gram-negative bacteria. Different extraction methods have different procedure to carry out the process. The extraction methods used in this study was the maceration extraction method and soxhlet extraction method. All of the extracts of respective samples and methods were extracted in 1mg/ml sample/solvent concentration. From the observation, soxhlet extraction method resulted with higher percentage yield for both *Myristica fragrans Houtt* and *Illicium verum Hook. f.* herbs sample with 35.19 % and 34.88 % respectively and 10.81% and 13.27 % respectively in maceration extraction method. No significant difference was observed on the effect of antimicrobial activity of both *Myristica fragrans Houtt* and *Illicium verum Hook. f.* herbs extracted using the different extraction methods towards the Gram-positive and Gram- negative bacteria. All four extracts showed the formation of zone of inhibition mostly on 100.00 mg/ml and 50 mg/ml concentrations and all zone of inhibition was showed by the positive control.Total phenolic content was high for both *Myristica fragrans Houtt* and *Illicium verum Hook. f.* herbs extracts extracted with soxhlet extraction with the value of 127.22 mg/g (GAE) and 106.39 mg/g (GAE) respectively while 38.50 mg/g (GAE) and 45.39 mg/g (GAE) respectively for maceration extraction methods.