

ESSENTIAL OIL / THUMMANG / EXTRACTION / FOOD FLAVOUR  
SAROTE PANYAMONGKOL : EXTRACTION OF ESSENTIAL OIL FROM  
THUMMANG *Litsea petiolata* Hook.f. LEAVES AND TWIGS AS  
A FOOD FLAVOR. THESIS ADVISOR : ASST. PROF. SUTHISAK  
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Thummang, *Litsea petiolata* Hook.f. is a native tree of Southern of Thailand. Thummang leave and twigs which have an odour liked Mangdana (*Lethocerus indicus*.) odour was used as a raw material for extraction by hexane, ethanol and direct steam distillation. The extraction were found that thummang leave gave the higher essential oil than twigs, and the direct steam distillation is a proper extraction which gave the highest yield 1.11 % (V/W), but not significant different ( $p \geq 0.05$ ) from the solvent extraction. The essential oil components were analysed and identified by Gas Chromatography-Mass spectrometry (GC-MS) and composed of 8 components which were 2-Butanone, 4-Cyclohexyl, 11-Dodecen-2-One, 5-Hepten-2-One, 6-Methyl, 2-Tridecanone, 1-Ethyl-2-Methylcyclohexane, 7-Octane-2-One, Undecanone, and 2-Nonanone. These components are different from Mangdana essential oil component.

Thummang essential oil was fractionated by silica gel column chromatography and resulted in 8 fractions, the odour of fraction II and III was similar to Mangdana essential oil, The volatile components of fraction II and III were 2-Butanone, 4-Cyclohexyl 6.75 percent, 5-Hepten-2-One, 6 Methyl 22.08 percent, 2-Tridecanone 68.34 percent 1-Ethyl-2-Methylcyclohexane 12.82 percent. The sensory evaluation of fraction II and III was compared with Mangdana essential oil at the concentration 1.0, 2.5, 5.0, 7.5 and 10.0 percent by Triangle test with 15 experienced panelists. It was found that the odour of fraction II and III of Thummang essential oil and Mangdana essential oil were significant different ( $p \leq 0.01$ ). The panelists significantly accepted ( $p \leq 0.01$ ) Mangdana essential oil more than fraction II and III. In conclusion, fraction II and III only had strong odour similar Mangdana.