

Jittanun Sruiy-iam 2010: Development of Aromatherapy Massage Oil Products from *Cinnamomum porrectum* (Roxb.) Kosterm. Volatile Oil. Master of Science (Environmental Technology and Management), Major Field: Environmental Technology and Management, Department of Environmental Science.  
Thesis Advisor: Associate Professor Bongotrat Pitiyont, Ph.D. 115 pages.

True laurel *Cinnamomum porrectum* (Roxb) Kosterm, known locally as Thep-Ta-Ro, is an aromatic plant grown in the south of Thailand. Generally, the roots have been used for carving by local people resultant in the generation of a very large amounts of root waste. The objective of this study was aimed to utilize true laurel root waste of Trang province in the production of essential oils for the blending into massage oil for application in aromatherapy. Water distillation of true laurel root waste yields a light yellow oil of 3.7 % (w/w). The essential oil contains safrole 95.9 % (w/w) as a major component. Among seven formulations of carrier oils developed, virgin coconut oil and sunflower seed oil at a ratio of 4:1 are considered to be the most acceptable formulation when subjected to acceptance testing (9-point hedonic scale). Blending of true laurel essential oils into massage oils proved that massage oil composed of true laurel essential oils, carrier oils and vitamin E as an antioxidant at 2.5 /97/0.5 % v/v, respectively resulted with the levels of satisfaction. The massage oil is yellow in color (10y 0.5r) with safrole and vitamin E content of 2.80, 0.069 %(w/w) The density and viscosity measured were 0.918 g/cm<sup>3</sup> and 18.3 cP, respectively with pH 4.60. Rancidity and contamination with *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Candida albicans* and *Clostridium spp.* of the product were not observed. In addition, the massage oil exhibits inhibitory activity to *Epidermophyton floccosum* at the minimal inhibitory concentration (MIC) of 15 mg/ml. The consumer acceptance testing revealed that the 50 targeted consumers approved of at a moderate level (hedonic score 7) with 70% acceptance. The shelf-life of the product is estimated to be 350 days at room temperature (25 °C). The cost of aromatherapeutic massage oil of true laurel essential oil content is 43.82 baht/ 30 ml.

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