

Patintida Thanamee 2014: Efficacy of Some Herbal Oil Extracts as a Larvicide against *Aedes aegypti*. Master of Science (Biology), Major Field: Biology, Department of Zoology. Thesis Advisor: Assistant Professor Smarn Kaewviyudth, Ph.D. 68 pages.

To assess the larvicidal potential of the oil extracts from the leaves of 10 species of herbal plants against *Aedes aegypti* larvae. The oil extracts were extracted from leaf of *Psidium guajava* showed the highest toxicity against mosquito larvae with the  $LC_{50}$  value of 13.54 ppm after 24 hours of exposure, followed by the lower toxicity of *Citrus hystrix*, *Ocimum basilicum*, *Cananga odorata* var. *fruticosa*, *Ocimum sanctum*, *Amomum krervanh*, *Ocimum americanum*, *Citrus aurantifolia*, *Syzygium aromaticum* and *Cinnamomum zeylanicum* with  $LC_{50}$  24.00, 24.50, 25.92, 28.46, 29.83, 31.54, 34.36, 37.68 and 49.97 ppm, respectively. All treatments resulted of larvae without any pupal or adult emergence. The controlled groups remained alive. The larvae developed into pupae and then adults within 60 – 72 hours.

Histologically section of the proventriculus of *A. aegypti* larvae were atrophied epithelium and necrotic connective tissue. Thus, *P. guajava* could be promising as an alternative source for producing and developing larvicidal substance used for controlling and eradicating mosquito vectors of dengue fever, especially *A. aegypti* in breeding places.

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