Larvicidal Activities of *Kaempferia galanga* Rhizome-Derived Constituents Against Larvae of *Culex pipiens pallens* and *Aedes aegypti*

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Methanol extracts from 28 aromatic medicinal plants were tested for their larvicidal activities against larvae of *Culex pipiens pallens* (Coquillett) and *Aedes aegypti* (L.). Responses varied according to plant and mosquito species. At a concentration of 100 ppm, methanol extracts of *Kaempferia galanga* rhizome, *Foeniculum vulgare* fruit, and *Illicium verum* fruit showed 100% mortality against larvae of *C. pipiens pallens* and *A. aegypti*. Purification of the biologically active constituents from the hexane fraction of the *Kaempferia* rhizome was done silica gel column chromatography and HPLC.

Bioassay-guided fractionation of the *Kaempferia* rhizome afforded two active constituents (H12 and H112) identified by spectroscopic analysis, including MS and NMR. H12 caused 100% mortality against larvae of *C. pipiens pallens* and *A. aegypty* at 50 ppm, whereas H112 gave 100% mortality against larvae of *C. pipiens pallens* and *A. aegypty* at 50 and 25 ppm, respectively. The *Kaempferia* rhizome-derived materials merit further study as mosquito larval control agents or as lead compounds.