

4-5. Larvicidal Activity of *Kaempferia galanga* Rhizome-Derived Phenylpropene against Four Mosquito spp.

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The insecticidal activity of materials derived from the MeOH extracts of *Kaempferia galanga* rhizome against 3rd instar larvae of *Culex pipiens pallens* (Coquillett), *Aedes togoi* (Theobald), *Aedes aegypti* (L.), and *Anopheles sinensis* (Wiedemann) was examined using immersion method. The biologically active constituent of the methanol extract was characterized as the phenylpropene *p*-methoxy ethyl cinnamate by spectroscopic analysis. Responses varied according to mosquito species. This compound gave 100% mortality against larvae of *Cx. pipiens pallens* and *Ae. aegypti* at 50 ppm but the activity was significantly decreased at 10 ppm. Against *Ae. togoi* larvae, this compound showed 100 and 81% mortality at 100 and 50 ppm, respectively. Against *An. sinensis* larvae, *p*-methoxy ethyl cinnamate at 100ppm exhibited potent larvicidal activity (100% mortality). The *Kaempferia* rhizome-derived materials merit further study as mosquito larval control agents.

