

**Bioefficacy of *Cassia fistula* Linn.(Ngu) Leaf extract against the Dengue vector
Aedes aegypti under laboratory condition**

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Myanmar Health Research Congress: 2014; pg.52

Abstract

Mosquitoes are responsible for spread of many diseases than any other group of arthropods. Diseases such as malaria, filariasis, dengue haemorrhagic fever and chikungunya are real threat to mankind. Various plant-based products are safe and biodegradable alternatives to synthetic chemicals for use against mosquitoes. This study was evaluated larvicidal and repellent activities of *Cassia fistula* Linn. crude leaf methanol extract against *Aedes aegypti* under laboratory situation. The *Cassia fistula* Linn. leaves were collected from Sitha village in Pyin Oo Lwin township and the leaves were shade-dried, powdered and extracted by using methanol. Twenty five late third and early fourth instar of *Aedes aegypti* were exposed to various concentrations and the larval mortality was observed after 24hours exposure. The repellent efficacy was determined against *Aedes aegypti* at 1.0, 2.5 and 5.0 mg/cm² concentration of methanol extract of *Cassia fistula* Linn.leaves. Each test concentration was repeated to six times in each experiment. Result indicated that LC₅₀ and LC₉₀ values were 25.81 mg/l and 54.29 mg/l respectively. In the skin repellent test, gave 100% protection up to 60, 90 and 180 mins respectively. The leaf extract of this plant was showed the larvicidal and repellent properties. From the present study *Cassia fistula* Linn. leaves may serve as botanical insecticide for control of dengue vector *Ae. aegypti*.