COMBINATION LARVICIDAL ACTION OF *SOLANUM XANTHOCARPUM* EXTRACT AND CERTAIN SYNTHETIC INSECTICIDES AGAINST FILARIAL VECTOR, *CULEX QUINQUEFASCIATUS* (SAY)

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Abstract. The combination activities of temephos, fenthion and petroleum ether extract of *Solanum xanthocarpum* were observed for their larvicidal activities against *Culex quinquefasciatus*. The combination of temephos and *S. xanthocarpum* was studied at ratios of 1:1, 1:2, and 1:4. Similar ratios were also used for the combination of fenthion and *S. xanthocarpum*. The temephos/plant extract combination acted antagonistically. The combination of fenthion and plant extract acted synergistically against the target organisms at a ratio of 1:1, which showed the best results of: LC_{50} 0.0144 and 0.0056 ppm and LC_{90} 0.0958 and 0.0209 ppm at 24 and 48 hours, respectively. The present study will be helpful in developing a commercial formulation for effective vector management.

Key words: fenthion, larvicide, *Solanum xanthocarpum*, synergism, temephos, *C. quinquefasciatus*

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