

Biological activity of *Annona muricata* seed extracts

ABSTRACT

A study was conducted to assess the biological activity of *Annona muricata* hexane, methanol and chloroform seed extracts. Both the hexane and methanol extracts showed moderate larvicidal activity against the *Aedes aegypti* larvae while the chloroform extract exhibited strong larvicidal property with an LC₅₀ value of 0.9005 µg/ml and an LC₉₀ value of 6.1776 µg/ml. Fraction 44b and 45b of the chloroform extracts were very toxic towards mosquito larvae with LC₅₀ values of 0.7460 and 1.0402 µg/ml, respectively. Identification of bioactive compounds revealed the presence of solamin, an acetogenin. From the cytotoxic assay against brine shrimp (*Artemia salina*), the methanol extract showed high toxicity with an LC₅₀ value of 11.8823 µg/ml. The results suggest potential application of the extracts in insecticidal formulations.

Keyword: *Annona muricata*; Seed extracts; Insecticidal; Solamin