Evaluation of the Use of Seed, Leaf and Bark Extracts from Sugar Apple (Annona squamosa) to Control Aedes aegypti and Cryptotermes brevis

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In recent years, many researchers studied and highlighted the insecticide effect of plants. A series of plants of different botanical families proved to have insecticidal activity. Among such families, Annonaceae has been investigated by presenting many species as a source of insecticidal compounds with different types of action on insects. Based on this fact and on the presence of termite (Cryptotermes brevis) and the yellow fever mosquito (Aedes aegypti) in our city, we investigated the Sugar-Apple (Annona squamosa) as a potential insecticide. Therefor, the aim of this project was to produce a natural insecticide from the seed, leaf and bark of this plant species able to combat both insect species. We hypothesized that it is possible to produce a natural insecticide with this plant and its use is a viable method of control of these pests. To test it, we made seeds, leaf and bark extracts using 50g of each plant part, dried in oven, and dissolved in distilled water, 46% alcohol and 70% alcohol. We tested the extracts in both insect species. Based on mortality results, compared with control groups we conclude that all three extracts are efficient in killing the insects, are natural insecticides and can substitute chemical industrialized insecticides.

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