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## A study on Nerium oleander extract as a potential mosquito larvicide.

Mosquitoes transmit serious diseases like malaria, dengue, chikungunya, and yellow fever. Plant extracts, including Nerium oleander leaf and flower extracts, offer a promising alternative to chemical insecticides. This study assessed their larvicidal effects on Culex mosquitoes. Flowers and leaves were collected, shade-dried, powdered, and then extracted using methanol, ethanol, hexane, and water. Vials with 5 ml of water and 1 ml of extracts were tested with fourth-instar larvae. The study found that polar solvents (ethanol and methanol) and hexane were more effective than aqueous extracts, with hexane showing the quickest action. Nerium oleander extracts demonstrate potential as eco-friendly larvicides, useful for controlling mosquito larvae, managing stored grain pests, and addressing other harmful larvae.

**Keywords:** Insecticide, eco-friendly, Nerium oleander, Culex mosquito, fourth-instar larvae, Flower and Leaf extract.

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