

# **Insecticidal activity of meliaceous seed extracts against *Crocidolomia binotalis* Zeller (Lepidoptera: Pyralidae)**

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## **Abstract**

Acetone seed extracts of 21 species of Meliaceae were evaluated for their insecticidal activity against second-instar larvae of *Crocidolomia binotalis* Zeller by a leaf-residue feeding method. The larvae were fed extract-treated broccoli leaves for 2 days, then were maintained on untreated leaves until the fourth-instar stage. Records were kept in regard to the area of leaves eaten during the 2-day feeding treatment, daily larval mortality, and developmental time of surviving larvae from instar II to instar IV. The seed extract of *Aglaia harmsiana*, *Azadirachta indica* (neem) and *Dysoxylum mollissimum* at a concentration of 0.25 percent exhibited a strong insecticidal activity against *C. binotalis* larvae (95-100 percent mortality), those of *Aglaia odoratissima* and *Trichilia trijuga* showed a fairly strong activity (78 percent and 87 percent mortality), whereas the activity of other extracts varied from inactive to moderately active (0-73 percent mortality). The active extracts generally exhibited the three kinds of effects, i.e. antifeedant, insecticidal and developmental derangement, at similar levels. The active extracts at 0.25 percent inhibited feeding by *C. binotalis* larvae on treated leaves by 78.4-96.6 percent and prolonged the developmental time from instar II to instar IV by 2.2-4.2 days as compared with controls. Further studies are needed to identify insecticidal compounds in the said active extracts, excepts neem which has been exhaustively studies.