

B77 LABORATORY EVALUATION OF PLANT EXTRACTS ON BLACK BEAN
APHID, *APHIS FABAE* SCOPOLI . (HOMOPTERA:APHIDIDAE).

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In the laboratory, dichloromethane and methanol extracts of shade-dried Glyco-
smis moritiana. (root bark), Calotropis gigantea (L) Ait.F. (flowers) and
Acorus calamus L. (rhizome) were evaluated on laboratory cultured black bean
aphid (=BBA) along with a recommended insecticide (dimethoate 40 E.C.) and un-
treated controls.

At the end of 24 hours after the treatment dichloromethane extract of Acorus
calamus L.(rhizome) caused mortality of BBA, which was comparable to that given
by the recommended insecticide. The other extracts were not as effective against
the BBA under these conditions.

The active compound of Acorus calamus L (rhizome) extract was separated by col-
umn chromatography and identified as β -asarone from spectral analysis.

This compound has strong fumigative toxicity on BBA and its use may be effective
on pests in closed containers viz;green houses. However this compound showed
no strong contact or residue toxicity effects on the BBA.