STUDIES ON THE EFFICACY OF DIFFERENT CONCENTRATIONS OF GARDENIA (*Gardenia forsbergii*) AND A PYRETHROID INSECTICIDE AGAINST THE LARVAE OF BRINJAL POD BORER (*Leucinodes orbanalis*)

BY

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A RESEARCH REPORT
SUBMITED IN PARTIAL FULLFILMENT OF
THE REQUIREMENTS FOR THE
ADVANCE COURSE
IN
AGRICULTURE BIOLOGY
FOR THE DEGREE OF
BACHELOR OF SCIENCE IN AGRICULTURE
EASTERN UNIVERSITY
SRILANKA
1998
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ABSTRACT

An investigation was conducted to study the effect of different concentrations of the *Gardenia* leaf bud *(Gardenia forsbergii* , locally called lakada) extract on the brinjal shoot and fruit borer larvae *leucinodes orbanalis* and compared with decis (recommended insecticide) in the Agricultural biology laboratory of the Eastern University Srilanka.

In the experiment the larvae were reared on 50ml artificial diet mdium contained in 100ml plastic containers. The artificial diet medium is composed of brinjal powder , agar , antibiotic (Vibromycin) , multivitamin and water. A single larva was introduced to each containers.

The *Gardenia* extract concentrations of 2.5g and 5g per 500ml of diet are corresponding to 5000,10000 parts per million respectively. Decis was incorporated at the level of 0.3ml per 500ml diet.

Weight and percentage survival of the larae were recorded for all treatments and control.

All the treatments significantly ($p< 0.01$) reduced the population of *Leucinodes orbanalis* larvae are control. The larvae introduced to *Gardenia* extract at 2.5g and 5g per 500ml diet resulted in 50% and 100% mortality respectively 7^{th} day after treatments. However , the larvae treated with decis showed 100% mortality after 3 days.

***Gardenia* used at the rate of 2.5g per 500ml diet showed lower mortality rate than concentration at 5g per 500ml diet . *Gardenia* concentration at 5gper 500ml diet was most effective and can be considered as economical dose in controlling eggplant fruits and shoot borer larvae. Among the treatments least larval survival (0%) was observed on diet treated with decis.**

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