

LABORATORY EVALUATION OF FIVE INSECTICIDES FOR THE CONTROL OF THE ASHWEEVIL, *Myllocerus Curvicornis* (F.) A NEWLY RECORDED PEST OF COCONUT PALM

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INTRODUCTION

The ashweevil is polyphagous in nature. The weevils show a preference for the middle and inner whorls, leaving spindle and innermost leaves in healthy/ apparently healthy coconut palms. They feed even on the spindle and innermost leaves in root (wilt) affected palms. Hiding on the lower surface of the leaflets, they feed from the margin in circular pattern showing a preference for the tip region. The present study was made to find out a suitable insecticide which will give a satisfactory control of the pest.

MATERIALS AND METHODS

Fenitrothion 50 EC 0.2 %-0.00625 %, lindane 20 EC 0.2%-0.0125 %, phosphamidon 100 EC 0.2%-0.0125%, endosulfan 35 EC 0.25%-0.00782%, dimethoate 30 EC 0.2%-0.00625% were tested against the weevils. Leafbits of 30 cm. long were taken and the insecticides mentioned in the

above doses were sprayed on the tip of the leaflets (10 cm long) using the Potter's tower. (at 1kg./cm² pressure). Field collected, normal looking healthy, ten active weevils were released in each conical flask and the sprayed leaflet was inserted in the flask and the neck was closed with cotton. The base of the leaflet was dipped in water. Observation was recorded for three days on normalcy, paralysis and mortality, at an interval of 24, 48 and 72 hours. The experiment was replicated five times for each dose. Fenitrothion and lindane at 0.2% gave only 42% and phosmadiion at 0.2% gave only 28% mortality. Since the mortality even at 0.2% was so low with the above insecticides, they were withdrawn from further studies. So the results for the three promising ones, viz. monocrotophos, endosulfan and dimethoate were subjected to probit analysis. The LD 50 and the upper and lower

fiducial limits were worked out. The results are presented below.

RESULTS

For monocrotophos the LD 50 was 0.01413, the upper and lower fiducial limits being 0.01668 and 0.01206 respectively. The LD 50 was 0.00409 for endosulfan, the upper and lower fiducial limits being 0.00579 and 0.00295 and that of dimethoate the LD 50 was 0.02418, the upper and lower fiducial limits being 0.02523 and 0.02409 respectively. The order of relative toxicity based on LD 50 on third day was endosulfan, monocrotophos and dimethoate.

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References

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