

THE INSECTICIDAL POTENTIAL OF AN
ENTOMOGENOUS FUNGUS *Metarhizium anisopliae*, Metch.
ON MANGO LEAFHOPPER *Idiocerus clypealis*, Leth.
UNDER LABORATORY CONDITIONS

A Thesis
Presented to the
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In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Biology

by
MILA M MAHILUM
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This Thesis entitled " THE INSECTICIDAL POTENTIAL OF AN ENTOMOGENOUS FUNGUS *METARHIZIUM anisopliae* , Metch. ON MANGO LEAFHOPPER *IDIOCERUS clypealis*, Leth. UNDER LABORATORY CONDITIONS" prepared and submitted by MILA M. MAHILUM in partial fulfillment of the requirements for the degree of MASTER OF SCIENCE IN BIOLOGY, has been examined and is recommended for acceptance and approval for ORAL EXAMINATION.

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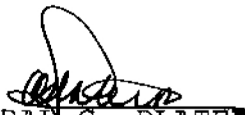

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ABSTRACT

The study investigated the insecticidal potential of an entomogenous fungus *Metarhizium anisopliae*, Metch. on mango leafhoppers *Idiocerus clypealis*, Leth. under laboratory conditions.

Fungal spore extract and fungal spore suspension were prepared from the Saboraud Dextrose Agar cultures of the fungus. Bioassay of fungal spore extract was undertaken at concentrations of 1 ppm, 10 ppm, 100 ppm, 1000 ppm and 10000 ppm for range finding test while definitive test was done at concentrations of 10 ppm, 18 ppm, 32 ppm, 56 ppm and 100 ppm. Pathogenicity test was carried out by preparing pure fungal spore suspension and serial dilutions of 1:10, 1:100, 1:1000 and 1:10000.

One hundred percent mortality of mango leafhoppers in fungal spore extract was observed at 100 ppm after 60 hours of exposure. In pathogenicity test of fungal spore suspension, 100 percent mortality was obtained in pure fungal spore suspension after 60 hours of exposure and at concentrations of 1:10 and 1:100 after 72 hours of exposure.

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