

EM-3EVALUATION OF *Metarrhizium anisopliae* (Metsch). SOR., AS
A BIOCONTROL AGENT FOR *Oryctes rhinoceros* L.

S. Gopalakrishnan, H. R. Jevanand
P.G. Department of microbiology
V.H.N.S.N College, Virudhunagar- 620 001

The ultimate objective of this study is for successful implementation of microbiological control of coconut pest *Oryctes rhinoceros* with the fungal pathogen *Metarrhizium anisopliae*. The Indian Rhinoceros beetle *Oryctes rhinoceros* L. is an important pest of coconut palms in India. It causes severe losses to coconut trees. So it has been chosen. The pathogenicity of *Metarrhizium anisopliae* to *Oryctes rhinoceros* was tested by mixing the fungal spores with the feeding material, 10^6 spores/gram of soil was used as the inoculum. The *Metarrhizium anisopliae* spores killed the larvae within 15 to 28 days of inoculation. Three different fungal spore combinations were studied (i) Major+ Minor (ii) Minor+ Flavoviridae (iii) Major+ Flavoviridae. Among the 3 combinations the combination 1 (Major+ Minor) showed a higher mortality rate when compared to other two combinations. Death observed on 8th day itself rather than 16th day by applying independently. The longevity experiments showed that major and minor has higher longevity when compared to *M. Flavoviridae*. To find out the mammal toxicity of the entomopathogen wistar albino rats were given with the fungal spore suspension both orally and *Parenterally*. All the rats were normal in appearance and behaviour throughout the 21 days after fungal spores are administered. No adverse toxic signs of death were observed in rats.