LABORATORY OBSERVATIONS ON THE ENTOMOPATHOGENICITY OF MEMBERS OF THE FAMILY BACILLACEAE ON CULEX BIPIENS FATIGANS

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The need for an effective agent of Vector biological control is evident in view of the escalating cost of insecticides and the widespread incidence of insecticide resistance. *Bacillus sphaericus* and *Bacillus cereus var Thuringiensis*, members of the family Bacillaceae, whose entomopathogenicity is effected by the toxic properties of the parasporal crystal (δ endotoxin) they

possess, have been extensively field tested in integrated pest control trials in many countries and found to be effective against 137 insect species. In addition, these microbes are ecologically inocuous,

Culex pipiens fatigans which is the principal vector of urban filariasis in Sri Lanka, thrives in the highly polluted water husk pits and catch pits. This milieu is ideal for the propagation and maintenance of bacteria which once introduced, would exercise their entomicidal effect indefinitely.

Strains of *B. sphaericus* and *B. cereus var thuringiensis* recommended as having entomopathogenic properties, were propagated, harvested, diluted to the recommended concentration and were employed severally and together to inoculate troughs containing *Culex pipiens fatigans* larvae. Deaths were recorded up to the end of pupation.

Varied concentrations and combinations of these bacteria were employed, and 100% mortality was observed in one.

It is intended, to test further strains (local and foreign) against Cules species, with a view to employ this in the vector control programme in Sri Lanka.