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Bioassay of *Sylepta derogata* larvae using the isolated protozoan pathogen of *Spodoptera litura* larvae

Sylepta derogate and *Spodoptera litura* larvae are the dominant foliage feeding insect pests of Okra plants grown in the southern part of Sri Lanka. However, their different feeding habits may reduce their competition for food and the leaf roll made by *S. derogata* larvae protect it further from the natural enemies and contact insecticides. Generally microbial control agents are very effective in controlling insect pests live in cryptic habitats (Dale, 19977). Therefore, present work was carried out to study the effect of microsporidian pathogen isolated from *S. litura* larvae on the mortality of *S. derogate* larvae.

Insects were collected from the okra plants grown in the Matara district. They were individually reared in the laboratory. *S. litura* larval population had heavy larval mortality due to the infection of microsporidian pathogen *Vairimorpha* sp. Estimation of Microsporidian population in the deal larvae ranged from $10.4x10^7$ to $46.3X\ 10^7$per mL.

Bioassay was carried out using the 3 rd instar S. derogata larvae. Larvae were fed on the okra leaves treated with the serial dilutions of the microsporidians. 50% of larval mortality occurred in the 1.24 x 103 /mL concentration. 100% larval mortality occurred in the microsporidian concentration above the 104/mL. Observations of the present

study indicate that the suitability of the microporidian pathogen as an effective bio control agent of *S. derogata* larvae.