

Nuclear polyhydrosis viruses (NPVs) are among the most effective insect pathogens which can be used to control insect pests. They are usually produced as microbial insecticides to control important insect pests in developed countries for several decades. However, it has shown that naturally occurring NPVs which often cause epizootic in insects under local conditions are more effective in controlling insect pests rather than the imported chemical products (Jones, 1988).

A preliminary survey was conducted to investigate the occurrence of NPV in the Cotton Bollworm – *Helicoverpa armigera* (Hubner) larvae, one of the most important vegetable pests in Sri Lanka. *H. armigera* larvae collected from different vegetable fields in southern part of Sri Lanka were reared under the laboratory conditions until pupation or death. Larvae which showed external symptoms NPV infections were observed under the Microscope and it was further confirmed by staining with Giemsa blue stain. Number of polyhedral Inclusion Bodies (PIBs) found in dead larvae ranged between  $2.91 \times 10^8$  to  $3.85 \times 10^8$  PIBs/ larva.

Pathogenicity of these NPVs were further tested using the 3<sup>rd</sup> instar *H. armigera* larvae reared on the semisynthetic diet. Surface of the cubes of diets were contaminated with various concentrations of PIBs collected from infected insects. Computed LD<sub>50</sub> was  $2.64 \times 10^4$  PIBs/ larva and the mean lethal times or incubation periods of larvae fed on serial dilution concentrations of PIBs from  $2 \times 10^7$  to  $4.96 \times 10^7$  were established. Pupation and survival of pupae were also affected by higher virus concentrations.