

Field efficacy of nucleopolyhedrovirus against armyworm, *Spodoptera litura* F. on tobacco

ABSTRACT

The efficacy of an indigenous *Spodoptera litura* nucleopolyhedrovirus strain for controlling field armyworm infestation was evaluated against a recommended insecticide (- Cypermethrin). The virus did not act as effectively as insecticide. It did not significantly reduce armyworm larval counts. However, it could reduce tobacco leaves damage due to armyworm infestation. In 1994, plots that were sprayed with virus, mixture of virus and insecticide, and untreated plots resulted in 23.10, 28.50 and 37.10% leaf damage due to armyworm infestation, respectively. In 1995 on the other hand, weekly spraying with virus did not reduce the percentage of damage significantly. The varying results between years were also observed in fresh weight of harvested tobacco leaves. In 1994 plots that were treated with a mixture of SpltNPV and insecticide had significantly lower yield than untreated plots but not significantly different to other treatments. However, no significant difference in the yield was recorded in 1995. The differences in the weather pattern between years might contribute to the differences in the outcome of the experiment between the years.

Keyword: *Spodoptera litura*; Nucleopolyhedrosis; Virus; Tobacco; Polyhedral inclusion body; Field experiment