

APPLICATIONS OF *Spodoptera litura* NUCLEAR POLYHEDROSIS VIRUS (SI-NPV) FOR THE CONTROL OF THE GROWER (*Spodoptera frugiperda*) IN CORN PLANT

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ABSTRACT

Corn is the most important commodity in the world besides rice and wheat. In addition, corn is a consumption need. To increase corn productivity, improvements are needed in terms of cultivation techniques. There are several factors that affect the low production yield. One of them is caused by the caterpillar pest *Spodoptera frugiperda*. One of the influencing factors is the type of insecticide. SI-NPV is a selective and environmentally friendly biopesticide. This study aimed to determine the mortality of SI-NPV, the intensity of armyworm attack, the weight of the cobs and the weight of the shelled corn. This research was conducted in January - April 2022 in the sub-district of Gujungan, Bondowoso Regency. This research method was carried out in a corn cultivation area of 100 m² by comparing the intensity of attack on the SI-NPV treatment with synthetic pesticide treatment, also comparing the yields of the SI-NPV treatment with synthetic pesticide treatment. Data processing using SPSS 15.0. The results of the efficacy test showed the optimal concentration of 0.3%. The results of this study showed that the intensity of attack on the SI-NPV application treatment was significantly different from the synthetic pesticide application treatment. The results of this study also show a significant difference in terms of yields in the SI-NPV application treatment and the synthetic pesticide application treatment.

Key words : Corn, Control, SI-NPV, Yield.