

***The Application Of Spodoptera Litura Nuclear Polyhedrosis Virus (Sl-Npv) For
Armyworm Control (Spodoptera Litura) On Edamame Soybean Plant
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ABSTRACT

The armyworm (Spodoptera litura) is one of the main pests of the Edamame plant. This pest attacks edamame soybean leaves which can reach up to 85 percent crop losses. Spodoptera litura Nuclear Polyhedrosis Virus (Sl-NPV) is a bioinsecticide in the form of a virus that can control armyworms effectively. This research was carried out in two stages, namely the first stage research was carried out at the Laboratory of Plant Protection at the State Polytechnic of Jember to conduct an Insecticide Efficacy test. The purpose of this study was to determine the reference concentration in the field based on the mortality and insecticide efficacy tests. Data analysis used a completely randomized design with 5 treatments, each of which was repeated 3 times. Further tests used the smallest significant difference (LSD) of 5%, using SPSS 15.0 software. The second stage of research was a field test, carried out in Balung Lor Village, Balung District, Jember Regency from August 2020 to October 2020. The second stage study aimed to observe the intensity of armyworm attack before and as difficult as the Sl-NPV application and to observe the number of pods per plant and weight. pods per plant. Field test data analysis to determine the intensity of attacks before and after Sl-NPV application using non-parametric Wilcoxon analysis. The number of pods and pod weight were analyzed using descriptive analysis using SPSS 15.0. The conclusion of this study was the efficacy of Sl-NPV insecticide to control 3rd instar armyworms was 0.3%. Sl-NPV 0.3% concentration becomes the reference concentration in the field. The intensity of the armyworm attack before Sl-NPV application was 12% and after the application was 5%. The number of pods averaged 21 pods per plant and pod weight an average of 49 grams per plant.

Keywords: *Edamame soybean, Sl-NPV, Armyworms*