THE EFFECT OF Spodoptera litura NUCLEAR POLYHEDROSIS VIRUS (Sl-NPV) ON POLLINATOR DIVERSITY IN SOYBEAN AGROECOSYSTEMS

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ABSTRACT

Pollinators or pollinating insects are insects that have a role in the pollination process, namely being an intermediary in pollinating plants. The use of insecticides can reduce the diversity of pollinators and result in the death of pollinators. Spodoptera litura Nuclear Polyhedrosis Virus (Sl-NPV) is one of the bioinsecticide in the form of a virus that is safe against pollinators. This research was carried out in two stages, namely the first stage of research carried out at the Plant Protection Laboratory of the Jember State Polytechnic, including a preliminary test: testing the effect of the effective concentration of Sl-NPV on the mortality of pollinator insects. The purpose of this study is to determine the effect of Sl-NPV on pollinator mortality. The second phase of the research is a field test, carried out in Balung Lor Village, Balung District, Jember Regency from August 2020 to October 2020. The purpose of this study is to examine the effect of Sl-NPV application before and after Sl-NPV application on the diversity and abundance of pollinators using the Shannon Weiner formula (H') and the Simpson dominance index (C'). Including the number of orders, families, species, number of individuals per species, The number sample of 50 plants selected in a zig-zag term. The conclusion of this study is the application of 0.3% Sl-NPV before Sl-NPV treatment, the diversity and abundance of pollinators included 3 orders, 4 families, 5 species. Meanwhile, after the application of Sl-NPV 0.3%, covering 3 orders, 4 families, 5 species. The Shannon Wiener Diversity Index (H') before the Sl-NPV treatment was 0.67 and after the treatment was 0.59 and included in the low category. The simpson's Dominance Index (C') before the Sl-NPV treatment was 0,53 and after the treatment was 0,60 which means that there was no dominant spesies.

***Keywords**: Edamame soybean, Pollinator Diversity, Sl-NPV*