

## SUMMARY

**Anandita Dyah Kiranasasi. 0610460004-46. The Persistence of Three Isolates *Spodoptera litura* Nuclear Polyhedrosis Virus (SINPV) from West Nusa Tenggara and East Java to Control *Spodoptera litura* Fabricius (Lepidoptera: Noctuidae) on Soybean Plant *Glycine max* L. Supervised by: Prof. Dr. Ir. Siti Rasminah Chailani Sy. and Dr. Ir. Aminudin Afandhi, MS. and also Drs. Bedjo, MS. as a third supervisor.**

---

*Spodoptera litura* is a major soybean pest that can decrease the production of soybeans. Using pathogen virus from NPV group in biological control is an alternative in integrated pest management which safe to environment. Biological control by using *Spodoptera litura* Nuclear Polyhedrosis Virus (SINPV) is one of the alternatives for controlling the *S. litura* in soybean plants. This research is conducted to determine the persistence of SINPV in each of the isolates tested. The research persistence of three isolates of Nuclear Polyhedrosis Virus (SINPV) from West Nusa Tenggara and East Java for controlling *Spodoptera litura* Fabricius larvae (Lepidoptera: Noctuidae) on soybean plants have been done in Entomology Laboratory, Balai Penelitian Kacang dan Umbi (Balitkabi) start from March 2010 till June 2010.

This research is conducted to test the persistence of three isolates of SINPV, two isolates from NTB (LB 06b and LT 06a) with isolates from East Java (JTM 05 h) on larvae of *S. litura*. Data analysis is done using the F test and BNT on standard error of 5%. The persistence of SINPV isolates of *s. litura* larvae are observed: 1. the percentage of time stop feeding, 2. the percentage of mortality larva, and 3. The percentage of establishment of the pupa and imago *S. litura* that are not death after SINPV infection.

The results showed that the three isolates of SINPV from NTB (LB 06a and LT 06b) with isolates from East Java (JTM 05 h) influenced differently to the percentages of larvae of *S. litura* who stopped feeding, the percentage of mortality of larvae of *S. litura*, and the percentage of pupa and imago of *S. litura* larvae formed after the inoculated isolates SINPV. SINPV LB 06a has highest persistence among three isolates tested, indicated by for 72 hours on the surface of soy bean leaves, isolates LB 06a still highest to stopped feeding and highest to death of *S. litura* larvae and are capable of suppressing formation of pupa and imago, so this isolate the potential to be developed as a biological control agents for larvae of *S. litura*.