

## ABSTRAC

**Siti Nur Rokhmah. 2016. “EFFECTIVENESS OF SOURSOP LEAF EXTRACT (*Annona muricata L*) AS BIOPESTICIDES CONTROLLING COCKROACH AMERICANA (*Periplaneta americana (L)*) (Blattaria:Blattidae) IN SETTLEMENT”**

**Under the guidance Mr. Drs. Yusuf Ibrahim, M.P., M.Pd and Mr. Drs. H. Ahmad Mulyadi, M.Pd**

This research was conducted on the background of health problem in Indonesian because Indonesian is a tropical country with temperature and humidity that affect the parasite transmission, one of the vector of disease transmission is the cockroaches *P.americana*. With the arrival of the cockroaches that invade homes will cause various problems of health and cleanliness. For that matter we found a solution with using soursop leaf extract. The purpose for this research is to gain information of the effectiveness of soursop leaf extract as biopesticides against. The mortality of cockroaches *P.americana*. The method of research that are being used are that experiment method with completely randomized design (RAL), with six treatment such as 0% control, soursop leaf extract with the concentration 15%, 30%, 45%, 60%, 75%, and four times repetition. The test of soursop leaf extract conducted with spraying the contents (direct contact) against 240 cockroaches *P.americana*. The main parameters measured is the level of cockroaches mortality *P.americana* which reached a level of 50% because if the concentrations used more than 50% it will disrupt the number of population in the cockroach *P.americana* ended with disruption of the ecosystem. The result of the research showed that the most effective concentration of minimum soursop leaf extract based by calculating  $LC_{50}$  is starts from 24% which is effective against 50% of cockroaches *P.americana* death, while the test results showed 30% concentration is effective against 52,5% death and the maximum concentration of soursop leaf extract that can be used is 75% which is capable to producing death rate by 85%. The conclusion of the research results can be concluded that the soursop leaf extract as a biopesticide effective against cockroaches *P.americana* because they contain compounds identified essential oil, eugenol, saponins, tannins and flavonoids that have properties as controlling insect pests.

Keyword : Soursop Leaf Extract (*Annona muricata linn*), Concentration  $LC_{50}$  ,  
Cockroach *Periplaneta americana*.