Siti Nur Rokhmah. 2016. “EFFECTIVENESS OF SOURSOP LEAF EXTRACT (Annona muricata L) AS BIOPESTICIDES CONTROLLING COCKROACH AMERICANA (Periplaneta americana (L)) (Blattaria:Blattidae) IN SETTLEMENT”
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This research was conducted on the background of health problem in Indonesian because Indonesia 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 reachhed 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.