

**BIOINSECTICIDE EFFECTIVENESS OF SOURSOP LEAVES (*Annona Muricata L.*)
TOWARD TO STINK BUD PEST (*Leptocorisa Oratorius*) ON RICE PLANTS (*Oryza
Sativa.L*)**

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ABSTRACT

Rice plant (*Oryza sativa L.*) is a rice-producing plant which is one of the obstacles in rice cultivation, namely being attacked by the stink bug pest. One of the alternative controls can be used namely using soursop leaf bioinsecticide. This study aims is to compare the effect of the application of soursop leaf bioinsecticide (*Annona muricata L.*) with a fipronil ratio on population, intensity of the stink bug pest attacks and crops. This research was conducted in August at the Plant Protection Laboratory and then continued with observations on the land of Balung Village, Balung District, Jember Regency. The research design used 6 treatment levels of soursop leaf bioinsecticide concentrations repeated 3 times (there were 18 experimental units). The stink bugs used was 10 stink bugs imago in each experimental unit. The observed variables included mortality and toxicity tests, population, attack intensity and sample dry grain weight. In conclusion, the results of the analysis of the GCMS test showed that the soursop leaf bioinsecticide contained 29 compound components which were detected by a mass spectrometer. The highest compound, namely Palmitic acid (18.39%) which was functions as an anti-bacterial and microbial used as a vegetable pesticide works as an insect repellent (repellent) which was affected by acetone (acetoin) and belongs to the carbonyl compound. The LC50 toxicity test obtained a percentage of 7% and 28% for LC95. The results of the toxicity test were used as a reference for determining field application concentrations, namely LC95 with a concentration of 28% to be compared with the active ingredient fipronil insecticide. The weight of the dry grain samples was more soursop leaf bioinsecticide compared to fipronil, which was 38.25 grams of soursop leaf bioinsecticide for fipronil 33.30 gram.

Keywords: *bioinsecticide, soursop leaf bioinsecticide, toxicity*