

**EFFECTIVENESS OF CORN COB LIQUID SMOKE BIOINSECTICIDES
AGAINST RICE EAR BUG (*Leptocorisa oratorius* F.)
OF RICE PLANTS (*Oryza sativa* L.)**

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ABSTRACT

*This study aimed to determine the effectiveness of corncob liquid smoke as a bioinsecticide in controlling the pest rice ear bug (*Leptocorisa oratorius* F.) on rice plants (*Oryza sativa* L.). The research was conducted from May to September 2022, at The Plant Protection Laboratory, Biosciences Laboratory Jember State Polytechnic and farmer's land in Balung North Village, Jember Regency. Laboratory research examines the bioactive compounds of 3rd grade corncob liquid smoke and the toxicity of bioinsecticides. The treatment of corncob liquid smoke was compared with synthetic insecticides with the active ingredient fipronil as a positive control, using the Mann Whitney test. Observations included the population of pest rice ear bug, the intensity of damage, and the weight of dry rice paddies per plant clump. The results of the GCMS analysis showed that 3rd grade corncob liquid smoke contained 49 compounds that were detected by mass spectrometer. The bioactive compound as an antifeedant with the highest concentration was Acetic Acid of 11 %. The toxicity of LC₅₀ and LC₉₅ were 1 % and 7 %, respectively; Corncob liquid smoke with LC₉₅ toxicity is more effective in reducing the pest population and intensity of damage; The average weight of dry paddy rice was 63 grams per plant clump (10,08 t/ha), more than the fipronil treatment with an average of 55 grams per plant clump (8,79 t/ha).*

Keywords : bioinsecticide; corncob liquid smoke; rice ear bug; rice plants; toxicity