

Application of Mix Bioinsecticide of Citronella and Goat Weed Leaves to Control Rice Ear Bugs

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ABSTRACT

*Intensive use of synthetic insecticides with the active ingredient dimehipo to control the rice ear bug pest in rice plants can result in environmental pollution and human health problems. Therefore, alternative insecticides from natural and environmentally friendly ingredients are needed to control these pests. This research aims to determine the effect of applying a bioinsecticide made from citronella grass and goatweed leaves in controlling the rice ear bugs (*Leptocorisa oratorius* F.) on rice plants. This research consisted of two tests, namely lab tests (mortality test and toxicity test) and field tests. The study was carried out from July to November 2024 at the Plant Protection Laboratory and Biosciences Laboratory of the Politeknik Negeri Jember and on the rice cultivation land in the Tanggung village, Padang District, Lumajang County. From the laboratory tests, the LC95 value for bioinsecticides was obtained at a concentration of 15%. At the field tests, the bioinsecticide and dimehipo synthetic insecticide were compared in several parameters namely number of pest populations, intensity of pest attack, weight of dry grain, and weight of rice grain per sample. The results of this study showed that the bioinsecticide and the dimehipo synthetic insecticide were not significantly different in all parameters observed.*

Keywords: *Inpari 32 rice, Insect, Organic pesticide*