

Effectiveness of Insecticide Mixture of Papaya Leaf and Wedusan Leaf Against Grasshopper Pests (*Oxya chinensis*) in Rice Plants

Advised by Dr. Ir. Moch. Syarief, M.P

Divie Sekar Widyadhari Istiantoro
Study Program of Crops Production and Technology
Majoring of Agricultural Production

ABSTRACT

*Grasshopper (*Oxya chinensis*) is one of the major pests on rice plants that can reduce rice production by 6.8-17.8% if 2-4 imago/m² are observed. Grasshoppers attack the rice plant leaves by biting the leaves into small holes which subsequently spread to reveal the bones of the leaves. Alternative control methods include the use of plant-based pesticides such as papaya and wedusan leaves. The purpose of this research is to assess the efficiency of plant-based insecticides combined with grasshoppers on rice plants. The research was conducted at the Plant Protection Laboratory and in Balung Lor Village, Balung District, Jember Regency from June to September 2021. The stages of this research were mortality test, insecticide efficacy test (EI), field test with population observation variables, attack intensity, and yields. The data were analyzed using a non-parametric statistical test with SPSS. The results showed that the effective concentration of mixed vegetable insecticides to control grasshopper was 20% with a 100% efficacy value and not significantly different in population, attack intensity, and yields compared to the application of synthetic insecticide alphasemic.*

Keywords: *effectiveness, mixed botanical insecticides, grasshopper*