

EFFECT OF PAPAYA LEAF PLANT-BASED INSECTICIDE (*Carica papaya*) AND WEDUSAN LEAVES (*Ageratum conyzoides*) MIXTURE AGAINST THE ARTHROPOD DIVERSITY OF RICE PLANTS

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ABSTRACT

Research on the use of papaya leaves and wedusan leaves on arthropod diversity in paddy rice plants to determine the arthropod population in rice paddy plants by using insecticides mixed with papaya and wedusan leaves. This study aims to examine the effect of a mixture of Bio insecticides papaya leaves (*Carica papaya*) and wedusan leaves (*Ageratum conyzoides*) on the diversity of rice plant arthropods including herbivores, predators and pollinators. The research was carried out for 4 months, starting from June 2021 to September 2021, located on the land of Balung lor Village, Balung District, Jember Regency. This study used 2 treatment plots measuring 100m². The first plot uses a mixture of Bio insecticides while the second plot uses Alifametricin. The data from the study were analyzed using the Shannon-Wiener Diversity index (H') and the Simpson Dominance index (C'). The results showed that the use of a mixture of Bio insecticides of papaya leaves and wedusan leaves affected arthropod diversity in rice plants with an H' index of 1.99 and a C' index of 0.16 while in the alifametricin treatment the H' index was 1.86 and the C' index was 0.20. As well as the weight of dry grain per clump of vegetable insecticide mixture treatment of 45 grams while alifametricin treatment of 43 grams.

Keyword : Bio Insecticides, Arthropod Diversity, Papaya leave, Wedusan leave