

Effect of Lemuru Fish Liquid Organic Fertilizer on the Growth and Yield of Rice Plants (*Oryza sativa*)

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ABSTRACT

Rice is the most widely cultivated and consumed cereal crop in Indonesia. National rice production has not met the needs caused by a decrease in productivity. Therefore it is necessary to optimize rice production through the application of liquid organic fertilizer (POC) for lemuru fish. This study aims to examine the response of rice plants to the application of liquid organic fertilizer (POC) in lemuru fish. The experiment used a nonfactorial completely randomized design (CRD) with five replications. the application of lemuru liquid organic fertilizer (POC) consisted of 4 levels namely, 0 ml/l, 30 ml/l, 40 ml/l, 50 ml/l, and 60 ml/l. The observed applications were number of tillers, number of productive tillers, panicle length, number of grains per panicle, dry grain weight, and grain weight per panicle. The results showed that the variable number of tillers with a concentration of 50 ml/l showed the best results with an average number of tillers of 27.6. In the productive tillers variable with a concentration of 0 ml/l (control) with an average of 21.4. The panicle length variable showed a significant effect on the panicle number variable at a concentration of 0 ml/l (control) with an average of 21.40. The variable number of grains per panel showed the best results at a concentration of 0 ml/l (control) with an average of 130.4 and the highest grain weight at a concentration of 0 ml/l (control) with an average of 4.68 grams. The application of liquid organic fertilizer (POC) to lemuru is thought to have an effect on the production of rice plants, namely in the control treatment.

Keywords: , *Lemuru Fish, Liquid Organic Fertilizer, Oryza sativa L.*