Application of Golden Apple Snail Liquid Organic Fertilizer and Chicken Manure Fertilizer on the Growth and Production of Kidney

Beans (*Phaseolus vulgaris* L.) Supervised by Ilham Muhklisin, S.S.T., M.Sc

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ABSTRACT

The excessive use of inorganic fertilizers reduces land productivity. Therefore the application of organic fertilizers needs to be encouraged. This study examined the effect of liquid organic fertilizer (made from golden apple snails) and chicken manure fertilizer on the growth and production of kidney beans (Phaseolus vulgaris L.). The research was conducted in June-August 2022 at BPTP using a Completely Randomized Block Design within two factors. The first factor was the concentration of liquid organic fertilizer: 0 ml/l, 150 ml/l, and 200 ml/l. The second factor was the concentration of chicken manure fertilizer: 1779.2 g/5 kg, 1891.7 g/5 kg, and 2004.2 g/5 kg of soil. Parameters observed included plant height, number of leaves, number of branches, stem diameter, number of filled pods per sample, number of empty pods per sample, the weight of filled pods per sample, and seed weight per sample. The results showed a significant effect of liquid organic fertilizer where the concentration of 150 ml/l had the greatest number on plant height. Meanwhile in the parameters of stem diameter, number of filled pods, the weight of filled pods, and seed weight per sample, the highest value was at 200 ml/l. Moreover, the concentration of 2004.2 g/5 kg chicken manure fertilizer significantly had the highest number in the number of branches, while the concentration of 1779.2 g/5 kg had the highest number in the number of empty pods. Generally, there was no significant interaction between liquid organic fertilizer and chicken manure fertilizer in all research parameters observed.

Keywords: Chicken Manure, Golden Apple Snail, Kidney Beans, Organic fertilizer