THE POTENTIAL OF COW URINE, RABBIT URINE, BIOGAS EFFLUENT WITH ADDITIONAL MORAGE LEAF AS LIQUID ORGANIC FERTILIZER (POC)

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ABSTRACT

The use of fertilizers in the world continues to increase in accordance with the increase in agricultural area, the use of fertilizers as an effort to increase agricultural yields. The continuous use of chemical fertilizers causes soil hardening. Chemical properties are relatively more difficult to decompose or break down compared to organic materials. One way to overcome the problems above is to use livestock waste into organic fertilizer, to prevent the decline in soil fertility.

The type and design of this research is descriptive. This study examines farmer waste used as liquid organic fertilizer with the addition of a variety of ingredients, namely Moringa leaves to determine the NPK content which refers to the Regulation of the Minister of Agriculture of the Republic of Indonesia Number 261/KPTS/SR.310/M/4/2019 concerning Minimum Technical Requirements for Fertilizers. Organic, Biological Fertilizer, And Soil Improver. This study uses a comparison of two formulas, each formula has three replications. the first formula is liquid organic fertilizer from cow urine, rabbit urine, biogas effluent and additional Moringa leaves in a ratio (1:2:1) and the second formula is liquid organic fertilizer from cow urine, rabbit urine, biogas effluent and additional Moringa leaves by comparison (2:1:1).

The NPK content in the first formula is 8.93% and the second formula is 9.77%, the NPK content of liquid organic fertilizer in this study has exceeded the requirements or met the Kepmetan Standard No. 261/KPTS/SR.310/M/4/2019 which is 2-6%, the NPK content in the first formula is smaller than the second formula. However, the phosphorus in the first formula is greater than in the second formula. This shows that the addition of biogas from cow dung and cow urine in liquid organic fertilizer in this study can affect the NPK content.

Keywords : cow urine, rabbit urine, biogas effluent and additional Moringa leaves, liquid organic fertilizer