A STUDY FOR URINE POTENCY FROM COMPOSTING TOILET IN AN ECOSAN SYSTEM (CASE STUDY: PUSDAKOTA-UBAYA SURABAYA).

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Abstract

Human Urine supplies at least 1% to domestic wastewater with a high enough nutrient content. 80% Nitrogen, 50% phosphate (Larsen et al, 2001). On the other hand, the increasing of food’s necessity increase the need for nutrient supply especially for rice plant (Oryza sativa L). Ecological Sanitation system offers contamination solution and nutrient supply by the principle of recycle, where the height rate of nitrogen and other chemical element in urine are being processed flexibly. Therefore, the purpose of this research is to measure the potency and understand the effect of variation and urine dose to rice plant growth.

The result of this research, processing hygienic urine with stored urine in 0 day, 30 days, and 6 month show the effects of the increment of pH and nitrogen content caused by urea hydrolysis along with the length of storage time. While stabilization by add acid and before storing it in 30 days could slow down the acceleration of ammonium forming and the increment of pH in the storing process.

More higher N-inorganic content in the given urine, the better the growth of the rice plant. While, variation of urine given could influence the height increment of the rice plant especially with 3000 ml urine.

Key words: Urine, Urea Hydrolysis, Urine Storage, Acidification, Rice Plant (Paddy)