

**KUALITAS KIMIA PUPUK ORGANIK MENGGUNAKAN  
BAHAN BAKU EKSKRETA ATAU *SLUDGE* BIOGAS  
DENGAN PENAMBAHAN ECENG GONDOK  
SEBAGAI MEDIA TANAM KANGKUNG  
(*Ipomoea aquatica*)**

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**INTISARI**

Penelitian ini bertujuan untuk mengetahui kualitas kimia pupuk organik padat dengan penambahan kadar eceng gondok yang berbeda menggunakan bahan baku *sludge* dan ekskreta ayam. Bahan yang digunakan adalah ekskreta, *sludge* dan eceng gondok. Penelitian ini terdiri dari lima tahapan, yaitu penjemuran bahan baku, pembuatan pupuk, penanaman selama 30 hari, uji kualitas kimia (uji kadar air, bahan organik, karbon, nitrogen, fosfor, kalium, dan rasio C/N), dan uji kualitas biologis (pengukuran tinggi tanaman dan berat kering kangkung). Perlakuan pupuk terdiri dari: pertama dan kedua sebagai kontrol adalah ekskreta (P1) dan *sludge* (P2) tanpa penambahan eceng gondok, perlakuan ketiga dan keempat dengan *sludge* (P3) dan ekskreta (P4) dengan penambahan eceng gondok sebanyak 5% dan perlakuan kelima dan keenam *sludge* (P5) dan ekskreta (P6) dengan penambahan eceng gondok 10%. Hasil yang diperoleh dianalisis dengan menggunakan analisis variansi RCBD (Random Complete Block Design). Hasil penelitian menunjukkan bahwa penambahan eceng gondok dalam pembuatan pupuk organik padat memberikan pengaruh yang berbeda nyata pada kalium ( $P < 0,05$ )

Kata kunci: *sludge*, ekskreta ayam, eceng gondok, pupuk organik padat.

**CHEMICAL QUALITY OF ORGANIC FERTILIZER USING EXCRETE  
AND BIOGAS SLUDGE AS RAW MATERIALS AND  
ADDITION OF WATER HYACINTH AS KALE  
(*Ipomoea aquatica*) PLANT MEDIA**

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**ABSTRACT**

This research was aimed to know the chemical quality of solid organic fertilizer with addition of water hyacinth in different measure and using biogas sludge and excrete as raw materials. Materials that used were excreta, sludge, and water hyacinth. This research consist of five stages, those were drying raw materials, fertilizer making, planting during 30 days, chemical quality test (water content, organic material, carbon, nitrogen, phosphorus, potassium, and C/N ratio), and biological quality test (kale height and dry weight). Organic fertilizer making consisted of six treatments, each treatment consisted of three repetitions. The first and second treatment as control were made the fertilizer with excrete (P1) and sludge (P2) without any water hyacinth addition, the third and forth treatment were made the fertilizer by sludge (P3) and excreta (P4) adding 5% water hyacinth and the fifth and sixth treatment were made the fertilizer by sludge (P5) and excreta (P6) adding 10% water hyacinth. The result showed statistically analyzed by variation of RCBD (Random Complete Block Design). The result shows that the addition of water hyacinth gives affect to the organic fertilizer significantly, those was potassium ( $P < 0,05$ ).

Key words: Excreta, Sludge, Water hyacinth and solid organic fertilizer