

**ANALISIS EFEKTIVITAS PUPUK ORGANIK CAIR BERBAHAN
LIMBAH JEROAN IKAN LELE (*Clarias* sp.) TERHADAP
PRODUKTIVITAS *Azolla microphylla***

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ABSTRAK

Limbah jeroan ikan lele (*Clarias* sp.) berpotensi mencemari lingkungan namun mengandung unsur hara N, P, dan K yang tinggi. Penelitian ini bertujuan mengetahui pengaruh pemberian pupuk organik cair (POC) berbahan limbah jeroan ikan lele terhadap produktivitas *Azolla microphylla* serta menentukan dosis yang paling efektif. Penelitian menggunakan Rancangan Acak Lengkap (RAL) dengan tiga perlakuan: P0 (kontrol, tanpa POC), P1 (dosis 2,250 ml/L), dan P2 (dosis 2,625 ml/L), masing-masing diulang tiga kali. POC dibuat melalui fermentasi selama 14 hari menggunakan probiotik *Lactobacillus* spp. *Azolla microphylla* ditanam dalam ember 25 liter dengan bobot awal 30 g selama 30 hari. Parameter yang diukur meliputi pertumbuhan bobot mutlak dan laju pertumbuhan harian. Hasil uji ANOVA menunjukkan adanya perbedaan signifikan antar perlakuan ($p=0,009$). Uji Tukey Post Hoc menunjukkan P1 dan P2 berbeda nyata dengan P0, namun tidak berbeda nyata satu sama lain. Perlakuan P1 menghasilkan pertumbuhan bobot mutlak tertinggi (203,00 g), diikuti P2 (173,33 g) dan P0 (108,67 g). Dosis 2,250 ml/L merupakan dosis paling efektif untuk meningkatkan produktivitas *Azolla microphylla*.

Kata Kunci: Azolla microphylla, Fermentasi, Ikan Lele, Produktivitas Biomassa, Pupuk Organik Cair

**ANALYSIS OF THE EFFECTIVENESS OF LIQUID ORGANIC
FERTILIZER MADE FROM CATFISH (*Clarias* sp.) OFFAL WASTE ON
THE PRODUCTIVITY OF *Azolla microphylla***

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ABSTRACT

Catfish (*Clarias* sp.) viscera waste has the potential to pollute the environment but contains high levels of N, P, and K nutrients. This study aimed to determine the effect of liquid organic fertilizer (LOF) made from catfish viscera waste on the productivity of *Azolla microphylla* and to identify the most effective dosage. A Completely Randomized Design (CRD) with three treatments was used: P0 (control, no LOF), P1 (dose 2.250 ml/L), and P2 (dose 2.625 ml/L), each replicated three times. LOF was produced through 14-day fermentation using *Lactobacillus* spp. probiotic. *Azolla microphylla* was cultivated in 25 liter buckets with an initial weight of 30 g for 30 days. Parameters measured included absolute weight growth and daily growth rate. ANOVA results showed significant differences among treatments ($p=0.009$). Tukey Post Hoc test indicated that P1 and P2 differed significantly from P0 but not from each other. Treatment P1 produced the highest absolute weight growth (203.00 g), followed by P2 (173.33 g) and P0 (108.67 g). A dose of 2.250 ml/L was the most effective dosage to enhance *Azolla microphylla* productivity.

Keywords: Azolla microphylla, Biomass Productivity, Catfish, Fermentation, Liquid Organic Fertilizer