

ABSTRAK

PERFORMA UDANG VANAME, *Litopenaeus vannamei*, (Boone, 1931) YANG DIPELIHARA DENGAN *GREEN WATER* DAN *BROWN WATER BIOFLOC SYSTEM*

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Teknologi *biofloc* merupakan salah satu solusi dalam meningkatkan produktivitas udang vaname (*Litopenaeus vannamei*). Dalam penerapannya, terdapat dua sistem dalam aplikasi *biofloc* yaitu *green water system* (di luar ruangan dan terkena matahari) dan *brown water system* (di dalam ruangan dan tidak terkena matahari). Penelitian ini bertujuan untuk membandingkan antara *green water system* dan *brown water system biofloc* terhadap performa dan produktivitas budidaya udang vaname pada skala laboratorium. Penelitian ini dilakukan pada bulan Maret-April 2021 di Laboratorium Budidaya Perikanan, Fakultas Pertanian, Universitas Lampung. Rancangan percobaan terdiri dari 3 perlakuan yaitu masing-masing 3 ulangan. Setiap ulangan ditebar 70 benur (PL-10) per akuarium dengan ukuran 0,8-1 cm. Udang dipelihara selama 30 hari. *Sampling* dilakukan pada awal dan akhir pemeliharaan dengan menimbang berat tubuh benur. Parameter yang diamati yaitu pertumbuhan berat mutlak, *Specific Growth Rate* (SGR), *Feed Conversion Ratio* (FCR), dan kelangsungan hidup (SR). Hasil penelitian menunjukkan bahwa perlakuan *green water system* secara signifikan ($P < 0,05$) menghasilkan nilai pertumbuhan berat mutlak, pertumbuhan spesifik, dan rasio konversi pakan udang vaname yaitu $0,30 \pm 0,01$ g, $15,56 \pm 0,72$ %/hari, dan $0,61 \pm 0,03$ secara berturut-turut. Penelitian ini dapat dijadikan acuan oleh pembudidaya untuk menerapkan *green water system*.

Kata kunci : *Biofloc, brown water system, green water system, vanamei*

ABSTRACT

THE PERFORMANCE OF VANAME SHRIMP, *Litopenaeus vannamei* (Boone, 1931) MAINTAINED WITH GREEN WATER AND BROWN WATER BIOFLOC SYSTEM

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*Biofloc technology is one solution in increasing the productivity of vaname shrimp (*Litopenaeus vannamei*). In its application, there are two systems in biofloc applications, namely green water system (outdoors and exposed to the sun) and brown water system (indoors and not exposed to the sun). This study aimed to compare the green water system and brown water system biofloc to the performance and productivity of vaname shrimp cultivation on a laboratory scale. This research was conducted in March-April 2021 at the Aquaculture Laboratory, Faculty of Agriculture, Lampung University. The experimental design consisted of 3 treatments, each of which is 3 repeats. Each repeat are stocked 70 vaname seeds (PL-10) by aquarium with a size of 0.8-1 cm. Shrimp were kept for 30 days. Sampling was carried out at the beginning and end of maintenance by weighing the body weight of the fry. Parameters observed were absolute weight growth, specific growth rate (SGR), feed conversion ratio (FCR), and survival rate (SR). The results showed that the treatment of green water system was significantly ($P < 0.05$) obtained weight growth, specific growth, and conversion rates of vaname shrimp feed of 0.30 ± 0.01 g, $15.56 \pm 0.72\%$ /day, and 0.61 ± 0.03 consecutively. This research could be used as a reference by cultivators to apply green water system.*

Keywords : *Biofloc, brown water system, green water system, vanamei*