

Initisari

Pengaruh Perbandingan Pakan Alami Artemia (*Artemia* sp.) dan Komersial Terhadap Pertumbuhan Udang Vaname (*Litopenaeus vannamei* Boone, 1931) dengan Media Air Salinitas Garam Krosok

Budidaya udang vaname di lahan pedalaman merupakan salah satu solusi untuk meningkatkan produksi udang dan garam krosok sebagai bahan penyusun salinitas air. Penelitian ini bertujuan untuk mengetahui pengaruh perbandingan pakan artemia dan komersial, dan mengetahui dosis pakan yang optimum untuk budidaya berdasarkan sintasan, pertumbuhan, dan rasio konversi pakan. Penelitian berlangsung 56 hari pada 24 Juni hingga 18 Agustus 2021, di Gejayan, Condong Catur, Depok, Sleman. Penelitian dilakukan dengan metode rancangan acak lengkap menggunakan ember plastik berkapasitas 75 L. Perlakuan yang diberikan yaitu, persentase pakan artemia 100%, 75%, 50%, 25%, dan 0%. Masing-masing perlakuan diulang tiga kali. Media dibuat dengan melarutkan garam dalam air tawar. Benih yang digunakan memiliki rata-rata berat 0,013 g dan ukuran panjang antara 0,9 cm. Pakan diberikan 4 kali sehari dengan ransum 12,5-9,5 % biomassa. Pengamatan jumlah, berat, dan panjang individu dilakukan secara *sampling*, serta kualitas air setiap dua minggu sekali. Data sintasan, pertumbuhan, dan rasio konversi pakan dianalisis dengan analisis varian dan diuji dengan Duncan test, bila hasilnya signifikan dilakukan uji lanjut dengan uji *orthogonal polynomial*. Parameter kualitas air diuji secara deskriptif. Hasil penelitian yang diperoleh: sintasan berkisar 55-78%, pertumbuhan berat mutlak 0,30-0,52 g dan pertumbuhan panjang mutlak 2,44-3,10 cm, rasio konversi pakan 1,15-2,90. Hasil penelitian dapat disimpulkan bahwa pemberian pakan dengan dosis yang berbeda dengan artemia dan pakan komersial sebanyak 0-100% berpengaruh nyata ($P < 0,05$) terhadap pertumbuhan dan rasio konversi pakan. Dosis pakan optimum pada perlakuan artemia 100% dan komersial 0%. Kualitas air memenuhi syarat untuk budidaya udang vaname.

Kata Kunci: garam krosok, pertumbuhan, rasio konversi pakan, sintasan, udang vaname

Abstract

Effect of Artemia (*Artemia* sp.) and Commercial Feeds Ratio on the Growth of Whiteleg Shrimp (*Litopenaeus vannamei* Boone, 1931) with Unrefined Salt

Whiteleg shrimp cultivation inland area is one technique to increase shrimp production and unrefined salt become a salinity ingredient. This study aims to determine the effect of comparison between artemia and commercial feeds and to determine the optimum feed dose for cultivation based on survival, growth, and feed conversion ratio. The study was running for 56 days from June 24 to August 18, 2021, in Gejayan, Condong Catur, Depok, Sleman Regency. The study was conducted using a completely randomized design method using a plastic tank with a capacity of 75 L. The treatments were 100%, 75%, 50%, 25%, and 0% artemia feed. Each treatment was repeated three times. Water media was made by dissolving unrefined salt in fresh water. The whiteleg shrimp used had an average weight 0,013 g and a length of 0,9 cm. Feed was given 4 times a day with a ration of 12.5-9.5% biomass. Observations of the number, weight, and length of individuals were carried out by sampling, as well as water quality once every two weeks. Data on survival, growth, and feed conversion ratio were analyzed by analysis of variance and tested with Duncan's test, if the results were significant, further tests were carried out using orthogonal polynomial tests. Water quality parameters were tested descriptively. The results obtained: survival ranged 55-78%, absolute weight growth 0.30-0.52 g and absolute length growth 2.44-3.10 cm, feed conversion ratio 1.15-2.90. The results of the study concluded that feeding with different doses of artemia and commercial feed as much as 100%:0% had a significant effect ($P < 0.05$) on growth and feed conversion ratio. Optimum feed dose on 100% artemia treatment: 0% commercial, but not significant result on survival rate. Water quality meets the requirements for vannamei shrimp culture.

Keywords: feed conversion ratio (FCR), growth, survival rate, unrefined salt, whiteleg shrimp