Intisari

Penelitian ini bertujuan untuk mengetahui kelayakan kualitas air pada tambak dan petak buangan periode 38- 66 hari pemeliharaan udang vaname (*Litopenaeus vannamei*) pada tambak di Pesisir Depok, Kabupaten Bantul. Penelitian dilaksanakan pada bulan Oktober sampai November 2018. Penelitian dilakukan dengan metode pengamatan secara langsung terhadap 2 petak tambak dan 1 petak buangan. Parameter kualitas air yang diamati suhu, daya hantar listrik, padatan terlarut total, salinitas, oksigen terlarut, pH, potensial redoks, bahan organik, amonia, nitrit, kebutuhan oksigen biokimiawi, karbondioksida, tebal endapan dalam tabung kerucut *imhof,f*. Hasil pengukuran parameter kualitas air pada tambak dan petak buangan selanjutnya dianalisis menggunakan metode indeks kualitas air (IKA). Hasil penelitian menunjukkan bahwa air pada tambak 1 memiliki nilai IKA 3,93 dan tambak 2 memiliki nilai IKA sebesar 3,53 yang tergolong dalam kriteria layak dengan resiko rendah. Nilai IKA yang dihasilkan pada petak buangan yaitu 3,25 termasuk dalam kriteria layak dengan resiko sedang. Parameter yang diteliti dari tambak dan petak buangan menghasilkan nilai korelasi < 0,05 yaitu terdapat hubungan antara tambak dan petak buangan.

Kata kunci : Kualitas air, petak buangan, tambak, udang vaname

Abstract

This study aimed to determine the feasibility of water quality in cultivation and waste ponds for the period of 38-66 days culture of Pacific white shrimp (*Litopenaeus vannamei* Boone, 1931) in Depok Coastal area, Bantul Regency. Research was conducted from October to November 2018. The study was conducted with a direct observation method of 2 cultivation ponds and 1 waste ponds. Water quality parameters observed were temperature, electrical conductivity, total dissolved solids, salinity, dissolved oxygen, pH, redox potential, organic matter, ammonia, nitrite, biological oxygen demand, carbon dioxide, sediment in the imhoff cone tube. The results of observed water quality in cultivation ponds and wastes pond were analyzed using the water quality index (WQI) method. The results showed that the water in the first cultivation pond had an WQI value of 3.93 and the second cultivation pond had an WQI value of 3.53 which were classified as eligible with low risk. The WQI value generated in waste pond was 3.25, which was included in the eligible criteria with moderate risk. Parameters examined from cultivation ponds and waste pond produced a correlation value of < 0.05, which were a relationship between cultivation ponds and waste pond.

Keywords: cultivation ponds, cultivation pacific white shrimp, water quality, waste pond