

Analisis kondisi fisik dan kimia efluen tambak udang vaname (Litopenaeus vannamei) di balai layanan usaha produksi perikanan budidaya Karawang, Jawa Barat = Analysis of physical and chemical effluent vaname shrimp (Litopenaeus vannamei) in production business service center of aquaculture Karawang, West Java / Andrean Alberto

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Abstrak

Perubahan sistem budidaya udang vaname dari sistem tradisional menjadi sistem intensif membawa dampak terhadap lingkungan. Penerapan budidaya secara intensif dapat meningkatkan produksi namun membawa dampak lain diantaranya pencemaran lingkungan oleh efluen tambak. Di BLUPPB Karawang efluen tambak langsung dibuang ke perairan umum tanpa dilakukan pengelolaan terlebih dahulu. Untuk melakukan pengelolaan diperlukan data analisis nilai fisik dan kimia perairan tambak. Penelitian dilakukan pada bulan November 2015 sampai dengan April 2016 di Balai Layanan Usaha Produksi Perikanan Budidaya (BLUPPB) Karawang, Jawa Barat. Tujuan penelitian ini untuk mendapatkan data analisis kondisi fisik dan kimia air pemeliharaan serta efluen tambak udang dan data analisis kandungan logam berat pada sedimen di saluran outlet tambak agar dapat dilakukan pengelolaan. Sampel diambil pada 3 lokasi (air pemeliharaan, efluen tambak dan sedimen di saluran outlet tambak) dan dianalisis berdasarkan baku mutu yang ditetapkan. Hasil penelitian menunjukkan nilai parameter fisik dan kimia pada air pemeliharaan cenderung terjaga dengan baik, akan tetapi nilai parameter fisik TSS sebesar 203 ppm, kekeruhan sebesar 51 NTU dan parameter kimia BOD sebesar 46 ppm berada melebihi baku mutu yang ditetapkan dalam KEPMENKP NO:28/MEN/2004. Rata-rata hasil pengukuran logam berat pada sedimen di saluran outlet tambak untuk logam Zn sebesar 1,66 ppm, Cu sebesar 0,73 ppm dan Cr sebesar 1,74 ppm, ketiga logam berat tersebut berada dibawah batas maksimum yang ditetapkan dalam standar baku mutu IADC/CEDA (1997).

.....Vaname shrimp culture system that changes from the traditional system into an intensive system had an impact on the environment. Application of intensive cultivation to increase production also bring other impacts including environmental pollution such as effluent ponds. In BLUPPB Karawang, pond effluent directly discharged into public waterways without any prior treatment. Ponds management (physical and chemical parameters) measurement are needed to maintain good quality of pond water in the effluent. The study was conducted from November 2015 until April 2016 at Balai Layanan Usaha Produksi Perikanan Budidaya (BLUPPB) Karawang, West Java. The purpose of this study was to obtain data on physical and chemical parameters in pond and effluent water, to analyze heavy metals content in sediment of the pond at outlet channel. Samples were taken at three locations (pond, effluent ponds and pond sediments at the outlet channel). All values were compared with standart reference. The results showed that the value of physical and chemical parameters in pond water tend to be well maintained, but in the effluent the value of the physical parameters such as TSS was 203 ppm, turbidity was 51 NTU and parameters of chemical BOD was 46 ppm. This values exceeded the quality standards established by KEPMENKP NO: 28 / MEN / 2004. The average results of the measurement of heavy metals in sediment in the pond outlet channel for the metal were 1.66 ppm for Zn, 0.73 ppm for Cu and 1.74 ppm for Cr. Those values of heavy metals are below the maximum limits set within the standards quality by IADC / CEDA (1997).