

SYNDHI JULIA MUSTIKA SARI. NIM 180341100019. Hubungan Amonia (NH_3) Dan pH Pada Tambak Udang Vaname (*Litopenaeus vannamei*) Di Kecamatan Poto Tano, Sumbawa Barat. **Dr. Apri Arisandi, S.Pi., M.Si.**

RINGKASAN

Keberhasilan budidaya udang vaname (*L. Vannamei*) sangat dipengaruhi oleh keadaan kolam. Sistem budidaya dengan padat tebar tinggi akan menghasilkan limbah metabolisme semakin meningkat. Perlu adanya upaya monitoring dan pengecekan berkala kadar amonia (NH_3) dan pH pada air tambak udang untuk mendukung kesuksesan panen. Hal inilah yang melatarbelakangi penelitian ini dilakukan. Tujuan dari penelitian ini yaitu mengetahui hubungan amonia (NH_3) pada budidaya udang vaname, mengetahui hubungan amonia (NH_3) dan pH pada budidaya udang vaname, dan menganalisis hubungan amonia (NH_3) dan pH pada budidaya udang vaname. Desain penelitian yang digunakan adalah studi kasus kuantitatif dengan metode pengambilan data dengan teknik purposive sampling di salah satu tambak di wilayah Sumbawa Barat selama empat bulan. Berdasarkan penelitian yang telah dilakukan, didapatkan fluktuasi amonia (NH_3) pada budidaya udang vaname (*L. vannamei*) dari minggu ke- 8 hingga panen berkisar antara 7,4-8,0. Nilai fluktuasi tersebut melebihi standar baku mutu budidaya. Fluktuasi amonia (NH_3) dan pH pada budidaya udang vaname (*L. vannamei*) dari minggu ke-8 hingga panen teramati berbanding lurus. Nilai fluktuasi pH berkisar antara 7,4-8,0 dan amonia (NH_3) berkisar antara 0,000-0,215 mg/l. Hubungan amonia (NH_3) dan pH pada budidaya udang vaname (*L. vannamei*) dengan regresi menunjukkan arah hubungan linier positif signifikan artinya terdapat hubungan yang signifikan antara amonia (NH_3) dan pH pada tambak budidaya udang vaname (*L. vannamei*). Informasi penelitian ini dapat dijadikan sebagai referensi untuk kegiatan budidaya udang lebih kedepannya.

Kata kunci: Amonia, Budidaya, regresi, pH, Udang Vaname.

SYNDHI JULIA MUSTIKA SARI. NIM 180341100019. Relationship Between Ammonia (NH₃) and pH in Vaname Shrimp (*Litopenaeus vannamei*) Ponds in Poto Tano District, West Sumbawa. **Dr. Apri Arisandi, S.Pi., M.Si.**

ABSTRACT

The success of the cultivation of vaname shrimp (*L. Vannamei*) is greatly influenced by the state of the pond. A cultivation system with a high stocking density will produce metabolic waste increasingly. There needs to be efforts to monitor and periodically check ammonia and pH levels in shrimp pond water to support crop success. This is the reason behind this research being carried out. The purpose of this study is to know the relationship of ammonia (NH₃) in vaname shrimp farming, find out the relationship between ammonia (NH₃) and pH in vaname shrimp farming, and analyze the relationship of ammonia (NH₃) and pH in vaname shrimp farming. The research design used was a quantitative case study with a data collection method with purposive sampling technique in one of the ponds in the West Sumbawa region for four months. Based on the research that has been carried out, ammonia fluctuations (NH₃) were obtained in the cultivation of vaname shrimp (*L. vannamei*) from week 8 to harvest ranging from 7.4-8.0. The value of such fluctuations exceeds the standards of cultivation quality standards. Fluctuations in ammonia (NH₃) and pH in vaname shrimp farming (*L. vannamei*) from the 8th week to harvest were observed to be directly proportional. The value of pH fluctuations ranges from 7.4-8.0 and ammonia (NH₃) ranges from 0.000-0.215 mg /l. The relationship between ammonia (NH₃) and pH in vaname shrimp farming (*L. vannamei*) with regression shows a significant positive linear relationship, meaning that there is a significant relationship between ammonia (NH₃) and pH in vaname shrimp farming ponds (*L. vannamei*). This research information can be used as a reference for shrimp farming activities in the future.

Key word: Ammonia, Cultivation, regression, pH, Vaname Shrimp.