

DENSITY, SPECIES COMPOSITION OF *Vibrio* sp. AND GROWTH PERFORMANCE OF *Litopenaeus vannamei* IN CULTURED SHRIMP WATER AT DIFFERENT C/N RATIO

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Summary

This research was conducted to evaluate the density, composition of *Vibrio* species and growth performance of white shrimp (*P. vannamei*) cultured in cement tank 's water maintained at different ratio of C/N. Shrimps were acclimated during 10 days at the density of 2000 shrimp/m³ at salinity of 20 ± 0.1‰. The experiment was conducted with the 4 treatments: Control with no molasses added, treatments 1, 2 and 3 were supplemented with molasses at the rate of 10, 15 and 20 C/N. Bacteria density of *Vibrio* spp. ranged from 3.71 x 10³ cfu/mL – 3.60 x 10⁶ cfu/mL. However, density of total *Vibrio* fluctuated under the sinusoidal wave of 4 days/cycle. *Vibrio* bacteria were isolated on Chromagar *Vibrio* media, they were *Vibrio parahaemolyticus*; *V. vulnificus*; *V. cholerae* and *V. alginolyticus*. The results showed that the final weight of shrimp and the FCR of the treatments were not significantly different. However, the specific growth rate (SCR), the absolute growth rate in body weight (WG), were statistically significantly different (P< 0.05). In which, the final weight of shrimp in treatment 2 (C/N= 15: 1) was highest (0.69 ± 0.04 g/unit), followed by NT1 (C/N= 10: 1). 0.66 ± 0.04 g /ind.), which was 0.53 ± 0.06 g / ind. in NT3 (C/N= 20: 1) and lowest in the control (0.45 ± 0.06 g / ind.).

Keywords: Biofloc, *Vibrio* sp., White leg shrimp, *Litopenaeus vannamei*.