ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian probiotik dengan dosis berbeda terhadap kualitas air dan sintasan post larva udang vaname (*Litopenaeus vannamei*). Penelitian dilaksanakan pada bulan Desember 2024 di Hatchery CPP Anyer, Banten, menggunakan Rancangan Acak Lengkap (RAL) dengan empat perlakuan dan tiga ulangan, yaitu A (kontrol), B (10 ppm), C (15 ppm), dan D (20 ppm). Parameter yang diamati meliputi suhu, salinitas, pH, oksigen terlarut (DO), total padatan tersuspensi (TSS), kekeruhan, kelimpahan *Vibrio* sp., dan sintasan. Hasil penelitian menunjukkan bahwa pemberian probiotik dengan dosis berbeda berpengaruh nyata terhadap nilai DO dan sintasan ($p < 0,05$), namun tidak berpengaruh terhadap suhu, salinitas, pH, TSS, kekeruhan, dan kelimpahan *Vibrio* sp. Perlakuan B (10 ppm) menghasilkan sintasan tertinggi sebesar 87,78%, secara signifikan lebih tinggi dibandingkan kontrol (tanpa probiotik) yang hanya sebesar 65,56%. Dengan demikian, pemberian probiotik pada dosis yang tepat terbukti efektif dalam memperbaiki sebagian parameter kualitas air dan meningkatkan kelangsungan hidup post larva udang vaname.

***Kata kunci**: Probiotik, Kualitas air, Sintasan, Litopenaeus vannamei, Vibrio sp.*

ABSTRACT

This study aims to determine the effect of administering probiotics at different doses on water quality and post-larvae survival of vaname shrimp (*Litopenaeus vannamei*). The study was conducted in December 2024 at the CPP Anyer Hatchery in Banten, using a completely randomized design (RAL) with four treatments and three replicates: A (control), B (10 ppm), C (15 ppm), and D (20 ppm). The parameters observed included temperature, salinity, pH, dissolved oxygen (DO), total suspended solids (TSS), turbidity, *Vibrio* sp. abundance, and survival rate. The results showed that the administration of probiotics at different doses significantly affected DO levels and survival rate ($p < 0.05$), but had no effect on temperature, salinity, pH, TSS, turbidity, and *Vibrio* sp. abundance. Treatment B (10 ppm) yielded the highest survival rate of 87.78%, significantly higher than the control (without probiotics) at 65.56%. Thus, the administration of probiotics at the appropriate dose was proven effective in improving some water quality parameters and enhancing the survival rate of post-larvae of vaname shrimp.

Keywords: *Probiotics, Water quality, Survival rate, Litopenaeus vannamei, Vibrio sp.*