

EVALUATION OF THE EFFICACY IN INHIBITING *Vibrio parahaemolyticus* BDB1.4v CAUSING DISEASE IN SHRIMP OF *Bacillus subtilis*

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Summary

The present study was performed to evaluate the efficiency in inhibiting growth of *Vibrio parahaemolyticus* causing acute hepatopancreatic necrosis disease (AHPND) in white leg shrimp (*Litopenaeus vannamei*) of the *Bacillus* strain BRB2.1 and BDK2.3 isolated in shrimp culture area in Bac Lieu. The study consisted of two experiments. The first experiment was performed in a 100 L tank system in which shrimp were stocked at density of 30 inds/tank. In the second experiment, shrimp were set up in 1000 L composite tanks system at a density of 200 inds/tank with salinity of 20‰ for 35 days. In both experiments shrimp were challenged with *V. parahaemolyticus* in the conditions of with and without supplemental *Bacillus* strain BRB2.1 and BDK2.3. Total bacteria, *Vibrio* counts and some water parameters were recorded every 3 days during the culture period. The results indicated that after 35 days of culture, survival rate of shrimp in treatments provided BRB2.1 were highest (87.83%) and significantly higher than that of other treatments and this *Bacillus* strain is considered a beneficial bacteria that can inhibit growth of *Vibrio parahaemolyticus*.

Keywords: *Bacillus subtilis*, *Vibrio parahaemolyticus*, shrimp survival, acute hepatopancreatic necrosis disease, inhibitor.