

ABSTRACT

Dyah Maharani Sisya Puspita Sari. 24020220140048. Probiotic Potential of *Bacillus aerius* and *Bacillus flexus* to Improve the Growth of Vaname Shrimp (*Litopenaeus vannamei*). Agung Suprihadi and Arina Tri Lunggani.

Vaname shrimp is one type of crustacean that has a high response to feed, better resistance to disease and has resistance to poor environmental quality. One of the efforts to increase Vaname shrimp production can be done by providing quality shrimp feed, namely by adding probiotics. *Bacillus aerius* and *Bacillus flexus* are probiotic bacteria that can be found in the digestive tract of marine animals, such as sponges, coral reefs, and sea cucumbers. Sea cucumbers have the potential to be a source of symbiont bacteria that can produce bioactive compounds. This study aims to determine the effect of mixed cultures of *B. aerius* and *B. flexus* as probiotics in increasing the growth of Vaname shrimp. The research method consists of testing the antibacterial activity of *B. aerius* and *B. flexus* to determine their ability to inhibit the growth of pathogenic bacteria *Vibrio harveyi*, which is characterized by the presence of a clear zone around the disc paper. In vivo tests on vaname shrimp with observed parameters include absolute weight growth, absolute length growth, and specific growth rate. The results showed a significant difference (Sig, 2-tailed <0.05) on absolute weight growth (6.46 ± 0.63 g), absolute length growth (4.46 ± 0.12 g), and specific growth rate (4.76 ± 0.18 g). In this study it can be concluded that the mixed culture of *B. aerius* and *B. flexus* in feed can increase the growth parameters of Vaname shrimp.

Keywords: *Probiotics, Antibacterial, Bacillus aerius, Bacillus flexus*