

## **ABSTRACT**

### **THE EFFECT OF PROBIOTIC *Bacillus* sp. D2.2 IN FEED ON THE GROWTH AND SURVIVAL RATE POSTLARVAE OF JERBUNG SHRIMP *Fenneropenaeus merguensis* (de Man, 1888)**

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This research was aimed to observe the effect of the use of *Bacillus* sp. D2.2 and best dose as probiotic on growth and survival rate jerbung shrimp. This research was used completely randomized design (CRD) four treatments and three replications, namely A (Control, without probiotic), B (*Bacillus* sp. D2.2 10 ml x 10<sup>6</sup> CFU/ml/kg feed), C (*Bacillus* sp. D2.2 20 ml x 10<sup>6</sup> CFU/ml/kg feed), D (*Bacillus* sp. D2.2 30 ml x 10<sup>6</sup> CFU/ml/kg feed). The shrimp used in this research were PL 10 with a density of 30 postlarvae / aquarium for 35 days. The shrimp feeding method that used in research was blind feeding that reared 4 times a day. Parameters observed weight gain, length gain, ADG, survival rate, feed conversion ratio, protein efficiency ratio and water quality. The best treatment of probiotic *Bacillus* sp. D2.2 dose of 10 ml x 10<sup>6</sup>CFU/ml/kg. Feed of probiotic gave significant different on the growth of weight gain, length gain, ADG, feed conversion ratio, and protein efficiency ratio.

**Keyword** : growth gain, length gain, ADG, FCR, PER.

## ABSTRAK

### **PENGARUH PEMBERIAN PROBIOTIK *Bacillus* sp. D2.2 PADA PAKAN TERHADAP PERTUMBUHAN DAN SINTASAN POST LARVA UDANG JERBUNG *Fenneropenaeus merguensis* (de Man, 1888)**

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Penelitian ini bertujuan untuk mempelajari pengaruh pemberian bakteri *Bacillus* sp. D2.2 dan penggunaan dosis terbaik sebagai probiotik terhadap pertumbuhan dan sintasan udang jerbung (*Fenneropenaeus merguensis*). Penelitian ini menggunakan rancangan acak lengkap (RAL) 4 perlakuan dan 3 ulangan, yaitu kontrol (A), *Bacillus* sp. D2.2 10 ml x 10<sup>6</sup>CFU/ml/kg pakan (B), *Bacillus* sp. D2.2 20 ml x 10<sup>6</sup>CFU/ml/kg pakan (C), *Bacillus* sp. D2.2 30 ml x 10<sup>6</sup>CFU/ml/kg pakan (D). Udang jerbung yang digunakan dalam penelitian ini yaitu PL 10 dengan kepadatan 30 ekor/akuarium dipelihara selama 35 hari. Metode pemberian pakan yang digunakan yaitu *blind feeding* dengan pemberian pakan 4 kali sehari. Parameter yang diamati meliputi pertumbuhan berat mutlak, pertumbuhan panjang mutlak, laju pertumbuhan harian, sintasan, *feed conversion ratio*, *protein efficiency ratio* dan kualitas air. Perlakuan terbaik pemberian bakteri *Bacillus* sp. D2.2 adalah dosis 10 ml x 10<sup>6</sup>CFU/ml/kg. Pakan dengan penambahan probiotik memberikan pengaruh nyata terhadap pertumbuhan berat mutlak, panjang mutlak, laju pertumbuhan harian, *feed conversion ratio*, *protein efficiency ratio*.

**Kata kunci :** berat mutlak, panjang mutlak, laju pertumbuhan harian, FCR, PER.