

Study of *Spirulina platensis* meal effect in diet for growth and survival of *Litopenaeus vannamei* Larvae

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Abstract

This survey was conducted to survey the substitution effect of *Arthrospira platensis* and *Chaetoceros muelleri* as food for feeding *Litopenaeus vannamei* during zoea and mysis stage. Larvae were cultured in 30 L containers filled by 10 L at a density of 100 Larvae. During the experiment salinity was 30 ppt and the average of temperature, pH and DO were 31.4°C, 8.03 and 5.3 mg/l respectively. Three diet treatment and three replicates consist of two monospecific and 1 combination of two algae were designed. All treatments received *Artemia* naupli at 5/ml from M1 and micro bound diet at 6 mg/l/d. Survival and total length were measured in zoea and mysis stage. The result indicate that highest survival rate in Zoea (63.17±1 %) and mysis (45.3±1.2 %) was obtained in *Chaetoceros* (P<0.05). Maximum total length in Zoea (2.64±0.1mm) which there was not significant with *Chaetoceros* (P>0.05) but in mysis stage (4.44±0.09mm) was obtained in combination of *Chaetoceros muelleri* and *Arthrospira platensis* (P<0.05). The result of this survey indicated that combination of *Chaetoceros* and *Arthrospira platensis* is better for feeding *Litopenaeus vannamei* during zoea and mysis stage.

Keywords: *Litopenaeus vannamei*, *Spirulina platensis*, Zoea, Mysis, Survival, Total length