Effects of Water Alkalinity on the Survival Rates and Growth of Young Blue Swimming Crab 
(\textit{Portunus pelagicus} Linnaeus, 1758) in Fiber Nursery Tanks

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Abstract

Study on the effects of water alkalinity on the survival rates and growth of young blue swimming crab in fiber nursery tanks was divided into 2 periods, zoea I to zoea IV and zoea IV to young crab stages. Completely Randomized Design was used for the experimentation. Analysis of Variance was employed in data analysis and means of the survival rates and size of crab from each treatment were compared by using Duncan’s New Multiple Range Test at 95% level of confidence.

Experimentation with crab from zoea I to zoea IV stages was carried out. The average survival rate of crab larvae reared in 150 mg/l alkalinity of water (72.99 ± 7.12%) was significantly higher than those in 100 and 200 mg/l alkalinity of water (P<0.05). Otherwise, average size of crab larvae reared in 150 mg/l alkalinity of water was significantly (P<0.05) and insignificantly (P>0.05) bigger as compared with those in 100 and 200 alkalinity of water, respectively.

Experimentation with crab from zoea IV to young crab stages was performed. The average survival rate of crabs reared in 200 mg/l of water (20.31 ± 4.81%) was significantly higher than those in 100 mg/l (4.65 ± 1.68%) and 150 mg/l (7.83 ± 1.47%) alkalinity of water (P<0.05). Average sizes of crabs in such levels of alkalinity were not significant different (P>0.05).

Keywords: Young blue swimming crab, Water alkalinity, Survival rate, Growth

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