STUDY ON CULTURE OF DONKEY’ S EAR ABALONE (Haliotis asinina Linnaeus, 1758) FED WITH SEAWEED (Gracilaria fisheri Xia et Abbott) AND ARTIFICIAL FOOD

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ABSTRACT

Study were divided into 2 experiments, first experiment was carried out by hanging method in concrete tank and second experiment was carried out by hanging method in the sea. Juveniles abalone Haliotis asinina Linnaeus, 1758 1.0 cm shell length were kept within the cages which provided bent PVC sheet inside as shelter and adjusted the density at 1 piece/5 cm² (30 abalones per cage). Both experiments were fed with fresh seaweed (Gracilaria fisheri Xia et abbott) and artificial food 0.1 fold and 0.002 fold of body weight throughout the experiment, respectively. Growth, survival rate and food conversion ratios were investigated between seaweed and artificial food.

The results in first experiment after 7 month showed that abalone fed with artificial food grew better than abalone fed with fresh seaweed, 95 % statistically significant (P<0.05). Abalone attained 20.45±0.13 g and 10.77±0.21 g, 4.20±0.19 cm and 3.43±0.31 cm in mean weight and mean shell length, respectively. Survival rates were similar as 100% both in first and second treatments. Food conversion ratios were 2.24, and 5.12, respectively. Comparing the cost of culturing abalone in concrete tank fed with artificial food and fresh seaweed were 472.95 bath/kg and 657.38 bath/kg, respectively.

In contrast, second experiment show that abalone fed with fresh seaweed grew better than abalone fed with artificial food, 95 % statistically significant (P<0.05). They attained 8.10 ±0.22 g and 6.44±0.42 g, 2.99±0.19 cm and 2.76±0.56 cm in mean weight and mean shell length, respectively. Survival rates were 88.87±7.68 and 75.53±10.72%, respectively. Food conversion ratios were 5.22, and 3.34, respectively. While, culturing abalone in sea fed with fresh seaweed and artificial food were 1,000 bath/kg and 1,229.81 bath/kg, respectively.

Keywords: Abalone, Culture, Seaweed, Artificial food

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