COMPARISON OF BLACK TIGER SHRIMP (*Penaeus monodon* Fabricius) CULTURE FROM PL 10 AND PL 40 IN THE EARTHEN PONDS BY PHYSICAL TREATMENT

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ABSTRACT

A comparative study on growth of black tiger shrimp from PL 10 and PL 40 was carried one for 120 days. Two experimental sets were designed. First set was stocked PL 10 in 1,000 and 2,800 m² earth ponds at density of 50 PL/m². Second set was stocked PL 10 in three 480 m² nursing ponds for 30 days, then move to 1,000 and 2,800 m² culture pond at stocking density of 25 PL/m² (survival rate of nursing pond was 49.17 %). Aeration of both ponds was air blower at the pond bottom.

It was found that 1,000 m² pond produced 918.08 and 555.52 kg./rai in 120 days of cultivation at growth rate of 0.13 and 0.18 g./day, survival rate of 75.80 and 40.87 %, food conversion ratio of 1.69 and 1.76 and the production cost of 108.11 and 140.46 baht/kg. for PL 10 and PL 40 stocking, respectively. Shrimp of 2,800 m² pond stocked PL 10 was infected by white spot syndrome viral (WSSV) after 24 days of cultivation. The result of PL 40 in 2,800 m² showed that growth rate was 0.15 g./day, survival rate was 44.46 %, the yield was 500.69 kg/rai, food conversion ratio was 1.63 and the production cost was 104.04 baht/kg..

The result showed that nursing from PL 10 to PL 40 not increase of survival rate and product. The water qualities were within the standard range of quality for aquaculture. Except nitrite and nitrate which were higher than standard range, total ammonia higher and dissolve oxygen in both stages were lower than standard range in short time. Which cause amount of organic material and amount of low aeration.

Key words: Culture, Postlavae Black Tiger Shrimp (PL 10 and PL 40), Physical Treatment

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