



## **The effect of different densities on the profitability of *Litopenaeus vannamei* rearing at the earthen pond**

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### **Abstract:**

The aim of this study, evaluate profitability of *Litopenaeus vannamei* was cultured in different densities at the earthen pond on crop of 2019 in Delvar site located in Bushehr province. This study was conducted in two farms each of them with an area of 20 hectares base on semi-intensive and intensive culture system so that, the ponds with area of 1.2 and 2 ha. In semi-intensive farm was stocked with 17, 30 and 33 42 PL/m<sup>2</sup>, respectively. In intensive farm the pond was stocked 20, 30 and 40, 50 PL/m<sup>2</sup> in the pond of 1.2 and 2 ha., respectively. The result showed cost of feed (59-62%) was the highest cost and cost of energy is the lowest cost in shrimp rearing. Production in semi-intensive system was more economical although total biomass were produced in intensive system approximately 1.6 times more than semi-intensive. However, total cost of shrimp production was 29 thousand Rials/ kg while the net profit was in semi-intensive and intensive culture system 19 and 18 thousand Rials/ kg, respectively. According to the obtained results, the most profitable density is 33 and 40 pieces/m<sup>2</sup> in 1.2 and 2 ha., respectively.

**Keywords:** *Litopenaeus vannamei*, Culture, Density, Economic.