Effect of Different Culture Managements on Production of Sea Grape (*Caulerpa lentillifera* J. Agardh, 1837) Rearing by Hanging Method in Concrete Tank

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Abstract

This study aimed to investigate the effect of different culture managements on sea grape (*Caulerpa lentillifera* J. Agardh, 1837) production which was hung in concrete tank. The experiment was divided into three types of management which the sea grape were cultured using 1) water exchange method 2) inorganic fertilizer method and 3) seaweed and sea bass integrated culture, respectively. The experiment was conducted at Suratthani Coastal Aquaculture Research and Development Regional 3 Center from February to June 2016. The increasing seaweed yield was monthly harvested for 4 months. The results showed that the average increasing yield of treatment 1, 2, 3 were -22.94±6.20, 150.59±7.52 and 77.18±6.49 g, respectively, the ratio of yield were -0.15±0.05, 1.00±0.05 and 0.51±0.04 and the average daily weight gain (ADG) were -0.76±0.25, 5.02±0.25 and 2.57±0.22 g/day. Specific growth rate (SGR) were -1.04±0.21, 2.21±0.08 and 1.24±0.10 %/day, respectively. In statistic, the average increasing yield, ADG and SGR were significantly different (P<0.05). In conclusion, growth of culture of sea grape with inorganic fertilizer was the highest, while that of water exchange method was the lowest.

**Key words:** sea grape, fertilizer, growth, concrete tank

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