

Comparison of Growth and Biomass of Red Alga Cultured on Rope and Net

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Abstract : This research has been conducted to study the method of culture and comparing growth and biomass of *Gracilariacorticata* cultured on rope and net for 50 days through two treatments (first treatment: culture of alga on net and the second treatment: culture of alga on rope and each treatment was repeated by four cases). During culture period, the water of aquariums was replaced once every two days for 40-50%. Also, 0.3-0.5 grams of Urea fertilizer was added to the culture environment for fertilization. Moreover, some of the environmental factors such as pH, salinity and temperature of the environment were measured on a daily basis. During the culture period, extent of longitudinal growth of the species of both treatments was equal. The said length was reached from 8-10 cm to 10.5-13 cm accordingly. The resulted weight in repetitions of the first treatment was higher than that of the second treatment in such a way as in the first treatment, its weight reached from 10 grams to 21.119 grams and in the second treatment, its weight reached from 10 grams to 17.663 grams. On a whole, it may be stated that that kind of alga being studied has a considerable growth with respect to its volume. The results have revealed that the percentage of daily growth and wet weight at the end of the first treatment was higher than that of the second treatment and it was registered as 0.934, 6.072 and 811.432 in the first treatment and 0.797, 4.990 and 758.071 in the second treatment respectively. This difference is significant ($P < 0.05$). Growth and biomass of *G. corticata* through culture on net was more emphasizing on numerous branches due to wider bed. Moreover, higher level of the species in this method was exposed to sunlight and this increased biosynthesis and eventually increases of growth and biomass.

Keywords : red alga, growth, biomass, culture, net, rope

Conference Title : ICPES 2015 : International Conference on Plant and Environmental Sciences

Conference Location : Boston, United States

Conference Dates : April 20-21, 2015