Density of microalgae cell and chlorophyll a content of Nannochloropsis oculata in different salinity and medium

Abstract
Nannochlorosis microalgae is belonged to phylum Chlorophyta and sub-phylum Eustigmatophyceae. In this study growth of Nannochloropsis oculata has been evaluated in four different media (Conway, Guillard, N8, TMRL) and different salinity (20, 25, 30 ppt) with triplicate for treatments in laboratory (temperature was 25°C, pH=11, light intensity=2500LUX, light duration=18 hours and 6 hours darkness and also aeration using aquarium pump for 24 hours) During 14 days culturing. The growth of Nannochloropsis oculata has been determined with two counting methods, neobar lam and cellular concentration and the amount of a chlorophyll a by using spectrometry method. According to the results, significant differences between treatments with medium salinity differences exist (p <0.05) and medium Conway salinity 25 ppt in terms of increased density and salinity 20 ppt the amount of a chlorophyll a in the first grade, medium Guillard with salinity 20ppt in terms of increased density and a chlorophyll a second level, medium TMRL salinity 25 ppt in terms of increased density and a chlorophyll a third and medium N 8 with salinity 25 ppt in terms of increased density and salinity 20 ppt the amount of a chlorophyll a in fourth place fall.

Keywords: Microalgae, Nannochloropsis oculata, Culture, Growth, Salinity, Chlorophylla.