

**PRODUCTION OF *CHLORELLA* UNDER DIFFERENT LIGHT EXPOSURES  
AND INTENSITIES**

by

**GRICHELLE RAMIREZ DUQUE**

An Undergraduate Thesis presented to the faculty of College of Fisheries in partial  
fulfillment of the requirements for the degree of

**BACHELOR OF SCIENCE IN FISHERIES**

**Department of Aquatic Resources, Ecology and Management**  
**COLLEGE OF FISHERIES**  
**CENTRAL LUZON STATE UNIVERSITY**  
Science City of Muñoz, Nueva Ecija  
Philippines

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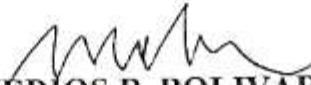
  
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# PRODUCTION OF *CHLORELLA* UNDER DIFFERENT LIGHT EXPOSURES AND INTENSITIES

## ABSTRACT

The 17 days of culturing *Chlorella* to determine the effect in different light exposures at different light intensities in the production. The study has two factors were; Factor A= two light exposures (time); Factor B = two light intensities (lumens). Treatment 1 (400 lumens, 6 hours exposures); Treatment 2 (600 lumens, 6 hours exposures); Treatment 3 (400 lumens, 12 hours exposures); Treatment 4 (600 lumens, 12 hours exposures);

The result showed that Treatment 4 (600 lumens, 12 hours exposures has a higher production among those other Treatments. Treatment 1 (400 lumens, 6 hours exposures) has a lowest production. Based on the study, it was therefore concluded that the use of light bulbs with 600 lumens light intensity combined with photoperiod of 12 hours was ideal for the maximum production of *Chlorella*.

This study was limited on the production performance of *Chlorella* in a different light exposures (time) and different light intensities (lumens). It is recommended to add vermicast in culture in same light intensities and exposures.

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