

## ABSTRACT

### INORGANIC NITRATE UTILIZATION ON EXPONENTIAL PHASE OF *Tetraselmis sp.*

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*Tetraselmis sp.* is one of the potential for cultivated microalgae as a natural food. *Tetraselmis sp.* harvested as natural food in exponential phase. Culture activities *Tetraselmis sp.* need nutrients to produce high density and rapid harvest time. One of them is the inorganic nitrate (  $\text{NaNO}_3$  ) required by *Tetraselmis sp.* as a source of nitrogen to produce proteins. Manipulation of inorganic nitrate (  $\text{NaNO}_3$  ) at *Conwy* fertilizer cause variations in the biochemical composition *Tetraselmis sp.* This study aims to determine the effect of reducing inorganic nitrate concentration to the total protein content and density of *Tetraselmis sp.* in the exponential phase. The study was conducted on 1-30 July 2014 held at the Laboratory of Aquaculture, Agriculture Faculty, University of Lampung. The results showed that the use of nitrate anorganic to the density and total protein content of *Tetraselmis sp.* has a close relationship, therefore total protein content remained high in a condition of nitrate deficiency. Based on t test were obtained from the study showed that the reduction of inorganic nitrate (  $\text{NaNO}_3$  ) at *Conwy* fertilizer not give effect to the *Tetraselmis sp.* density and inorganic nitrate concentration in the culture medium.

Key word: *Tetraselmis sp.*, exponential phase, environmental manipulation, nitrate anorganic, fertilizers *Conwy*