

ABSTRACT

UTILIZATION OF INORGANIC NITRATE ON LAG PHASE OF *Tetraselmis sp.*

By

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Tetraselmis sp. is a potential for cultivation of microalgae as a natural food. The life cycle of *Tetraselmis sp.* greatly influenced by the adaptation phase or phase lag. In the lag phase, the environmental conditions affecting the duration of the lag phase, which has implications for the length of time the culture of *Tetraselmis sp.* There needs to be an effort to speed up the time of culture, one way is to manipulate the environment by reduction of inorganic nitrate (NaNO_3) in *Conwy* medium. The study was conducted on 1-12 July 2014 held at the Laboratory of Aquaculture, Faculty of Agriculture, University of Lampung. Based on t test results obtained from the study showed that the reduction of inorganic nitrate (NaNO_3) in *Conwy* medium has not significant effect on the density of *Tetraselmis sp.* and the concentration of inorganic nitrate in the culture medium. By the time the condition of insufficient blood levels of nitrate (NO_3), nitrate in the culture medium is used for the formation of the protein rather than to the process of cell growth *Tetraselmis sp.*

Keywords: *Tetraselmis sp.*, The lag phase, the manipulation of the environment, inorganic nitrates, fertilizers *Conwy*