

## ABSTRACT

Arinta, Rina P. R. 2012. Effect Concentration Of Liquid Waste Tapioca Growth and Lipid Levels Generated By *Scenedesmus* sp. Thesis. Department of Biology, Faculty of Science and Technology, State Islamic University (UIN) Maulana Malik Ibrahim Malang. Supervisor I: Romaidi, M.P, Supervisor II: Ach. Nashichuddin, M.A.

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Energy crisis that is sweeping the world today, is an issue that must be addressed. Continuous exploitation of the fossil fuels which are non-renewable energy (unrenewable energy) resulted in the dwindling presence. On the other hand consumer demand for fuel continues to increase with economic growth, industrial growth, and the production of motor vehicles. This fact is not in line with the existing condition that the amount of oil production in the world per year are not comparable with the number of requests.

Fetching data were obtained from the calculation of cell growth and lipid testing *Scenedesmus* sp. each treatment. Data were analyzed using statistical methods completely randomized design (CRD) One Way ANOVA with 5 treatments of different delivery media concentration of 10%, 20%, 30%, 40%, 50% and 0% without giving media concentration (as a control), respectively each treatment was repeated 3 times replications.

The results showed that treatment of 0%, 10%, 20%, 30%, 40% and 50% effect on the growth and lipid content of *Scenedesmus* sp. If the higher concentration of tapioca liquid waste then growth and lipid levels *Scenedesmus* sp. high. Growth of *Scenedesmus* sp. produced at the lowest concentration of 0% with a mean value and growth 1814393.667 *Scenedesmus* sp. produced the highest concentration of 40% and 50% with a mean value 5124999.333 and 5,268,939, due to the concentration of the growth of *Scenedesmus* sp. not significantly different, while the lowest lipid concentration resulting in 0% to 19,832% and the highest amount produced in concentrations of 40% and 50%, due to the concentration of the lipid produced by *Scenedesmus* sp. not significantly different from the number 31.99133333% and 32,424%.