

Density and Growth Rate of *Nannochloropsis oculata* with Different Photoperiods

Title	Density and Growth Rate of <i>Nannochloropsis oculata</i> with Different Photoperiods
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Abstract	<p><i>Nannochloropsis oculata</i> is a type of single-celled or eukaryotic phytoplankton belonging to the class Eustigmatophyceae. This type of microalgae is widely used as natural food for rotifers and fish larvae because it has a high nutritional content. Given this role, many species of <i>Nannochloropsis oculata</i> are cultivated by culture. The success of microalgae culture is influenced by growth factors such as light intensity, CO₂, temperature, and nutrition. However, in the process problems often arise regarding the unstable growth of <i>Nannochloropsis oculata</i>. This is usually caused by factors that affect growth, such as light that is not optimal. Based on these problems, it is necessary to conduct research that aims to determine the growth rate of <i>Nannochloropsis oculata</i> with different irradiation treatments. The research method used was an experimental method with 4 treatments i.e., A (24L : 0D), B (12L : 12D), C (18L : 6D), and D (6L : 18D). The results showed that different light exposure period on the density of <i>Nannochloropsis oculata</i> microalgae had no significant effect on their growth rate. Even though the results of statistical tests of photoperiod administration did not affect the production of <i>Nannochloropsis oculata</i> microalgae cell density, the treatment with the dark phase resulted in better growth.</p>
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