

Kandungan minyak botryococcus braunii, nannochloropsis Sp., dan spirulina platensis pada umur yang berbeda

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Abstrak

Research on the oil contents of microalgae i.e. Botryococcus braunii, Nannochloropsis and Spirulina platensis of different cultivation time have been done at Research Center for Marine and Fishery Product Processing and Biotechnology (RCMFPPB) Laboratory, Slipi, Jakarta. The three species of microalgae were cultivated outdoor in 100 L of seawater medium of 20 ppt salinity using sun light intensity and continuous aerations. Experiments were conducted in three replicates.

Observations on the cell growth were carried out every 2 days and the biomass were harvested on day 5, 9 and 15 and sun-dried. Oil were extracted from the dry biomass using hexane. The highest cell density was reached by S. platensis with 8.46 log cell/mL on day 13, while the highest growth rate was shown by S. platensis with growth rate (k) = 9.40 on day 3. The highest yield of oil was obtained from B. braunii on day 9 which was 14.90%.