

ABSTRAK

KUALITAS PASTA *Nannochloropsis* sp. ISOLAT LAMPUNG MANGROVE CENTER (LMC) PADA SKALA INTERMEDIET BERDASARKAN UJI KANDUNGAN PROTEIN

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Nannochloropsis sp. merupakan fitoplankton yang diperlukan dalam kegiatan budidaya perairan sebagai pakan hidup larva ikan. Salah satu perairan yang terdapat *Nannochloropsis* sp. dengan jumlah melimpah yaitu *Lampung Mangrove Center*. Penelitian ini bertujuan untuk mengetahui kandungan protein pada pasta *Nannochloropsis* sp. isolat *Lampung Mangrove Center* pada kultur skala intermediet yang diberikan pupuk kombinasi dan dosis NaOH yang berbeda sebagai agen koagulan (pengendapan). Penelitian ini menggunakan Rancangan Acak Lengkap Faktorial (RALF) dengan dua perlakuan dan masing-masing dilakukan ulangan sebanyak tiga kali. Perlakuan pertama yaitu dengan melihat perbedaan pemberian kombinasi pupuk pertanian (Urea 40 ppm, ZA 20 ppm dan TSP 5 ppm) dan pupuk Conwy 1 ml/L. Perlakuan kedua yaitu pembuatan pasta dengan pemberian dosis NaOH berbeda (100 ppm, 125 ppm, 150 ppm dan 175 ppm). Data

dianalisis dengan menggunakan metode *Analysis of Variance* (ANOVA), apabila diperoleh hasil yang berbeda nyata, maka akan dilakukan dengan uji Beda Nyata Terkecil (BNT) taraf $\alpha = 0,05$. Hasil penelitian menunjukkan bahwa pemberian kombinasi pupuk pertanian dan pupuk Conwy tidak menyebabkan perbedaan pertumbuhan populasi (kepadatan sel, laju pertumbuhan dan waktu generasi) *Nannochloropsis* sp. isolat LMC secara signifikan pada taraf $\alpha = 0,05$ pada kultur skala intermediet. Dan semakin tinggi dosis NaOH yang diberikan maka berat pasta *Nannochloropsis* sp. akan semakin tinggi. Serta Persentase kandungan protein tertinggi terdapat pada pemberian dosis NaOH 175 ppm dan NaOH 150 ppm dengan kombinasi pupuk Conwy teknis yaitu sebesar 15,73% dan 14,87%.

Kata kunci : *Nannochloropsis* sp., protein, kombinasi pupuk dan dosis NaOH

ABSTRACT

QUALITY OF PASTA *Nannochloropsis* sp. LAMPUNG ISOLATE MANGROVES CENTER (LMC) TEST BASED ON SCALE INTERMEDIATES PROTEIN CONTENT

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Nannochloropsis sp. is a phytoplankton that is needed in aquaculture activities as live food for fish larvae. One of the waters contained *Nannochloropsis* sp. with abundant amounts, namely Lampung Mangrove Center. This study aims to determine the protein content of *Nannochloropsis* sp. Lampung Mangrove Center isolates in intermediate scale cultures were given combination fertilizers and different NaOH doses as coagulant agents (deposition). This study used a Factorial Completely Randomized Design (RALF) with two treatments and each was repeated three times. The first treatment is to see the difference in the combination of agricultural fertilizers (Urea 40 ppm, ZA 20 ppm and TSP 5 ppm) and fertilizer Conwy 1 ml / L. The second treatment is making pasta by giving different doses of NaOH (100 ppm, 125 ppm, 150 ppm and 175 ppm). Data were analyzed using Analysis of Variance (ANOVA) method, if the results obtained were significantly different, it would be carried out with the Smallest Significant Difference test (LSD) level

= 0.05. The results showed that administration of a combination of agricultural fertilizers and Conwy fertilizer did not cause differences in population growth (cell density, growth rate and generation time) *Nannochloropsis* sp. LMC isolates were significantly at the level of $\alpha = 0.05$ in the intermediate scale culture. And the higher the dose of NaOH given, the weight of the paste *Nannochloropsis* sp. will be even higher. And the highest percentage of protein content was found in the administration of 175 ppm NaOH and 150 ppm NaOH with a combination of technical Conwy fertilizer which was 15.73% and 14.87%.

Keywords: *Nannochloropsis* sp., Protein, combination fertilizer and dose NaOH