Produksi biomassa mastigocladus (cyanobacteria) HS-46 pada medium BBM dan medium NPK = Biomass production of mastigocladus (cyanobacteria) HS-46 in bold's basal medium and NPK medium

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Abstrak

ABSTRAK
Penelitian mengenai pengaruh variasi konsentrasi medium NPK terhadap pertumbuhan Mastigocladus HS-46 telah dilakukan. Penelitian bertujuan untuk mengetahui pengaruh medium NPK terhadap berat biomassa. Selain itu, penelitian bertujuan untuk mengetahui konsentrasi medium NPK yang tepat agar menghasilkan berat biomassa yang didukung dengan kandungan protein dan lipid yang tinggi. Mastigocladus HS-46 ditumbuhkan menggunakan medium BBM sebagai medium kontrol dan medium NPK sebagai medium uji. Konsentrasi medium NPK yang digunakan, yaitu 80 ppm, 160 ppm, dan 240 ppm. Mastigocladus HS-46 diinkubasi pada suhu 35 C, intensitas cahaya 1500 mdash;3000 lux, dan pH awal medium sebesar 6,5. Pertumbuhan Mastigocladus HS-46 dilihat secara kualitatif berdasarkan kurva pertumbuhan dan secara kuantitatif berdasarkan uji statistik. Hasil penelitian menunjukkan bahwa Mastigocladus HS-46 yang ditumbuhkan dalam medium 240 ppm tumbuh lebih baik dari medium BBM, medium NPK 80 ppm, dan 160 ppm. Hal tersebut didukung dengan berat biomassa tertinggi pada hari ke-25 t25 sebesar 2,09 mg/mL-1 dan kandungan lipid tertinggi 57
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ABSTRACT
The study about the effect of variation concentration medium NPK to the Biomass Mastigocladus Cyanobacteria had been done. The aim of the study was to known the effect of variance concentration of NPK growth media within the biomass production. The other aim of the study was to determine the best concentration NPK growth media for Mastigocladus HS 46 to produce higher biomass with high protein and lipid content. Mastigocladus HS 46 was grown in BBM as a control and NPK growth media as working media. The variance concentration of NPK growth media that had been used for this study were 80 ppm, 160 ppm and 240 ppm. Mastigocladus HS 46 was incubated on 35 C with light intensity 1500 mdash 3000 lux and initial pH 6.5. The growth of Mastigocladus HS 46 was meausured with qualitative data based on growth curve and quantitative data based on statistic. The result showed that the best concentration for Mastigocladus HS 46 growth was in 240 ppm than BBM, NPK medium 80 ppm, and NPK medium 160 ppm. Based on the highest biomass production was 2.09 mg.mL 1 and lipid content was 57.