

Pengaruh variasi ph awal medium ct terhadap kerapatan sel synechococcus cyanobacteria hs-7 dan hs-9 = The effect of initial ph variation to the cell density of synechococcus cyanobacteria hs-7 and hs-9 in ct medium

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Abstrak

ABSTRAK

Penelitian yang bertujuan untuk mengetahui pengaruh variasi pH awal medium CT terhadap kerapatan sel Cyanobacteria genus Synechococcus HS-7 dan HS-9 yang diinkubasi pada suhu 35 C telah dilakukan. Penelitian dilakukan selama 22 hari dari hari ke-0 t0 hingga hari ke-21 t21 . Penghitungan kerapatan sel dilakukan setiap hari t0 mdash;t21 , sedangkan pengukuran kandungan klorofil dilakukan selama 10 hari pada t0, t1, t2, t3, t4, t7, t10, t14, t17, dan t21. Terdapat 5 variasi perlakuan pH yang digunakan, yaitu pH 5, pH 6, pH 7, pH 8, dan pH 9. Setiap perlakuan dilakukan 3 kali pengulangan. Pengamatan dilakukan secara kualitatif dan kuantitatif. Data yang diperoleh kemudian diuji menggunakan analisis statistika Spearman dan Friedman. Hasil penelitian menunjukkan bahwa variasi pH awal medium CT berpengaruh terhadap kerapatan sel Synechococcus HS-7 dan HS-9. Synechococcus HS-7 dan HS-9 dapat tumbuh baik pada pH 7. Berdasarkan uji analisis statistik, terdapat korelasi antara kerapatan sel dengan kandungan klorofil Synechococcus HS-7 dan HS-9, serta nilai pH awal medium CT yang berbeda tidak berpengaruh terhadap kerapatan sel Synechococcus HS-7 dan HS-9.

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ABSTRACT

Research that aims to know the effect of initial pH variation of CT medium to the cell density of Cyanobacteria genus Synechococcus HS 7 and HS 9 were grown at temperature 35 C had been performed. The study was done for 22 days from day 0 t0 to day 21 t21 . Cell density calculations were performed everyday t0 mdash t21 while the measurement of chlorophyll content was performed for 10 days at t0, t1, t2, t3, t4, t7, t10, t14, t17, and t21. There were 5 variations of pH that used in this research pH 5, pH 6, pH 7, pH 8, and pH 9 . Each treatment carried out in 3 replications. Observations were done qualitatively based on the cell density while quantitatively based on statistical analysis using Spearman and Friedman tests. The results showed that the initial pH variation of CT medium affected the growth of Synechococcus HS 7 and HS 9. Synechococcus HS 7 and HS 9 grew well at pH 7. Based on statistical analysis there were correlation between the cell density and chlorophyll content, and the initial pH variation of the CT medium did not affect the growth of Synechococcus HS 7 and HS 9.