Pengaruh variasi pH awal medium BBM terhadap kerapatan sel stanieria (cyanobacteria) HS-31B dan HS-48 = The effect of initial pH variation to the cell density of stanieria (cyanobacteria) HS-31B and HS-48 in BBM

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Abstrak

ABSTRAK
Penelitian mengenai pengaruh variasi pH awal medium terhadap pertumbuhan cyanobacteria genus Stanieria HS-31B dan HS-48 telah dilakukan. Penelitian bertujuan untuk mengetahui pengaruh pH awal medium terhadap kerapatan baeocyte dan sel vegetatif, serta kandungan klorofil sebagai parameter pertumbuhan Stanieria HS-31B dan HS-48. Stanieria HS-31B dan HS-48 dibiakkan menggunakan Bold Basal Medium BBM dengan variasi pH awal medium yang digunakan, yaitu pH 5, 6, 7, 8, dan 9, dengan tiga kali ulangan. Kedua strain diinkubasi dengan suhu 35 C dan intensitas cahaya 2500 mdash;3000 lux. Penelitian dilakukan selama 22 hari t0 mdash;t21 . Pertumbuhan Stanieria HS-31B dan HS-48 dilihat secara kualitatif berdasarkan kurva pertumbuhan, dan secara kuantitatif berdasarkan uji statistik. Hasil penelitian menunjukkan bahwa perlakuan pH awal medium tidak memengaruhi pertumbuhan Stanieria HS-31B dan HS-48. Stanieria HS-31B dan HS-48 dapat tumbuh baik pada lingkungan basa hingga pH 9, dan dapat bertahan pada lingkungan asam dengan pH 5. Selain itu, tidak terdapat korelasi antara kerapatan sel total dengan kandungan klorofil Stanieria HS-31B dan HS-48.
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ABSTRACT
Research on the effect of initial pH variation on growth of cyanobacteria genus Stanieria HS 31B and HS 48 had been observed. The research aims to know the effect of initial pH medium to growth of Stanieria HS 31B and HS 48, with growth parameters were baeocyte and vegetative cell density, and chlorophyll content. Stanieria HS 31B and HS 48 were grown in Bold Basal Medium BBM with initial pH 5, 6, 7, 8, and 9, with three repetitions. Incubation temperature was 35 C and light intensity was 2500 mdash 3000 lux. The research was observed during 22 days t0 mdash t21 . The growth of Stanieria HS 31B and HS 48 was qualitatively based on the growth curve, and quantitatively based on statistical tests. The results showed that the initial pH treatment of the medium didn rsquo t affect the growth of Stanieria HS 31B and HS 48. Stanieria HS 31B and HS 48 could grow well in an alkaline environment up to pH 9, and could withstand an acidic environment with a pH 5. In addition, there was no correlation between cell density with total chlorophyll content of Stanieria HS 31B and HS 48.