Intisari

Sumber nutiren yang dapat digunakan dalam kultur *Chlorella* sp. adalah pupuk anorganik. Penelitian ini dilakukan untuk mengetahui pengaruh komposisi pupuk anorganik dalam media kultur terhadap pertumbuhan *Chlorella* sp.. Penelitian ini dilakukan dengan menggunakan wadah toples transparan bervolume 2,5 L yang berisi air tawar bervolume 2 L. Kultur dilakukan di dalam ruangan dengan suhu antara 26-29 ^{o}C, lampu neon dan dengan aerasi secara terus menerus selama 14 hari pemeliharaan. Perlakuan pemberian pupuk anoganik terdiri atas komposisi pupuk Urea:ZA:TSP dengan perbandingan, yaitu 1:1:0,50; 2:2:0,70; 3:3:1; 4:4:1,25 dan Pupuk Walne sebagai kontrol yang masing-masing dilakukan dengan tiga ulangan. Penelitian ini dilakukan secara eksperimen dengan metode Rancangan Acak Lengkap. *Chlorella* sp. diberikan dengan kepadatan awal sebesar 30 x 10^4 sel/mL. Hasil penelitian menunjukkan bahwa pemberian pupuk anorganik komposisi 3:3:1 menghasilkan nilai laju pertumbuhan tertinggi yaitu sebesar 25,9 %/hari dan kepadatan populasi tertinggi pada populasi puncak sebesar 2.348 x 10^4 sel/mL.

Kata kunci : *Chlorella* sp., kepadatan, pertumbuhan, pupuk anorganik, populasi

Abstract

One of alternative which can be used as source of nutrients in *Chlorella* sp. culture was anorganic fertilizer. This research conducted to identify the effect of anorganic fertilizer composition in culture media toward the growth of *Chlorella* sp.. The research was executed by using transparent container 2.5 L which contain freshwater 2 L volume. Culture was in the laboratory and equipped with air conditioner, neon's lamp and aeration that continually during 14 days observation. This treatment consist of urea fertilizer:ZA:TSP which had their own composition that were 1:1:0.50; 2:2:0.70; 3:3:1; 4:4:1.25 and Walne as a control with each executed by three times replication and arranged based on experimental research with Complete Random Design methode. *Chlorella* sp. was given initially at density 30 x 10^4 cell/mL. The result indicated that by given anorganic fertilizer composition 3:3:1, it had the highest growth rate value that is 25.9 %/day and it had the highest density on the peak population that is 2.348 x 10^4 cell/mL.

Keywords : *Chlorella* sp., density, growth, anorganic fertilizer, population