

## ABSTRAK

### **PERTUMBUHAN MIKROALGA *Nannochloropsis* sp., *Tetraselmis* sp. DAN *Dunaliella* sp. PADA MEDIA AIR LIMPASAN BUDIDAYA UDANG VANAME (*Litopenaeus vannamei*)**

Oleh

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Penelitian ini bertujuan mengetahui pertumbuhan *Nannochloropsis* sp., *Tetraselmis* sp. dan *Dunaliella* sp. yang dikultur pada air limpasan budidaya udang vaname (*Litopenaeus vannamei*). Rancangan penelitian yang digunakan adalah Rancangan Acak Lengkap (RAL) dengan tiga perlakuan dan tiga ulangan, yaitu perlakuan A (100% air limpasan budidaya udang vaname sebagai media kultur *Nannochloropsis* sp.), B (100% air limpasan budidaya udang vaname sebagai media kultur *Tetraselmis* sp.) dan C (100% air limpasan budidaya udang vaname sebagai media kultur *Dunaliella* sp.). Parameter yang diamati meliputi kepadatan populasi *Nannochloropsis* sp., *Tetraselmis* sp. dan *Dunaliella* sp., nitrat, ortofosfat, pH, suhu, intensitas cahaya dan salinitas. Data parameter kepadatan puncak populasi *Nannochloropsis* sp., *Tetraselmis* sp. dan *Dunaliella* sp. diuji menggunakan uji (ANOVA) dengan tingkat kepercayaan 95% data menunjukkan berpengaruh signifikan setelah itu dilanjutkan uji Duncan dengan tingkat kepercayaan 95% data menunjukkan perlakuan A berbeda nyata terhadap perlakuan C. Hasil penelitian menunjukkan bahwa air limpasan budidaya udang vaname dapat dimanfaatkan sebagai media kultur mikroalga *Nannochloropsis* sp., *Tetraselmis* sp. dan *Dunaliella* sp. dan mikroalga *Nannochloropsis* sp. merupakan mikroalga yang menghasilkan kepadatan tertinggi sebesar  $34,5 \times 10^4$  ind/mL.

**Kata Kunci:** *Nannochloropsis* sp., *Tetraselmis* sp., *Dunaliella* sp., air limpasan, nitrat, fosfat

## ABSTRACT

### GROWTH OF MICROALGAE *Nannochloropsis* sp., *Tetraselmis* sp. AND *Dunaliella* sp. IN VANAME SHRIMP (*Litopenaeus vannamei*) CULTIVATION RUN OFF WATER

By

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This research was aimed to find out growth of *Nannochloropsis* sp., *Tetraselmis* sp. And *Dunaliella* sp. that cultivated on vaname (*Litopenaeus vannamei*) cultivation run off water. Experimental design was used Completely Randomized Design (CRD) with three treatments and three replications, there were A (100% vaname cultivation run off water as *Nannochloropsis* sp. culture media), B (100% vaname cultivation run off water as *Tetraselmis* sp. culture media), and C (100% vaname cultivation run off water as *Dunaliella* sp. culture media). The observed parameters were density population of *Nannochloropsis* sp., *Tetraselmis* sp. and *Dunaliella* sp., nitrat, ortofosfat, pH, temperature, light intensity, and salinity. The parameters data of density population *Nannochloropsis* sp., *Tetraselmis* sp. and *Dunaliella* sp. was tested by ANOVA with 95% level of trust showed significantly affected, then continued Duncan's test with 95% level of trust showed A treatment significantly different for C treatment. The results showed that vaname cultivation run off water could be used as a microalgae culture medium of *Nannochloropsis* sp., *Tetraselmis* sp. and *Dunaliella* sp. and microalgae *Nannochloropsis* sp. is a microalgae that produces the highest density of  $34,5 \times 10^4$  ind/mL.

**Key words:** *Nannochloropsis* sp., *Tetraselmis* sp., *Dunaliella* sp., run off water, nitrat, fosfat