

Nando Adiaksa NPM. 19.03.4.1.1.000045. PENGARUH PEMBERIAN JENIS PUPUK YANG BERBEDA TERHADAP LAJU PERTUMBUHAN PLANLET RUMPUT LAUT JENIS (*Eucheuma cottonii*) MELALUI KULTUR JARINGAN DI LABORATORIUM KULTUR JARINGAN RUMPUT LAUT BPBL LOMBOK. Dibawah bimbingan Wahyu Andy Nugraha, S.T., M.Sc. PhD

ABSTRAK

Jenis pupuk yang digunakan dalam kultur jaringan rumput laut adalah seperti pupuk PES (*Provasoli Enriched Seawater*), pupuk Urea, pupuk Conwy, pupuk Hidroponik, dan NPK. Semua jenis pupuk tersebut mengandung nutrisi yang berpengaruh terhadap laju pertumbuhan rumput laut. Untuk itu perlu dilakukan penelitian mengenai pengaruh pemberian jenis pupuk yang berbeda terhadap laju pertumbuhan planlet rumput laut. Tujuan dari penelitian ini adalah agar menjadi data yang dapat digunakan sebagai acuan dalam produksi bibit rumput laut melalui kultur jaringan dalam menghasilkan bibit dengan jumlah yang banyak dan berkualitas. Penelitian ini dilakukan selama 60 hari (2 bulan) di Laboratorium Balai Perikanan Budidaya Laut Lombok. Sampel yang digunakan dalam penelitian ini adalah planlet hasil regenerasi mikropropagul di Laboratorium. Jenis pupuk yang digunakan adalah PES (*Provasoli Enriched Seawater*), Conwy, Hidroponik dan Tetra. Perlakuan 1 (Pupuk PES 10ml) memiliki nilai Laju Pertumbuhan Spesifik Harian paling tinggi diantara perlakuan lainnya dengan nilai LPH sebesar 3.42%. Hasil Uji Beda Nyata Terkecil dengan taraf 5%, perlakuan 1 (Pupuk PES 10ml) memiliki perbedaan yang paling signifikan terhadap laju pertumbuhan harian dibandingkan dengan perlakuan lainnya. Perlakuan 1 (Pupuk PES) merupakan jenis pupuk yang paling baik digunakan untuk mempercepat laju pertumbuhan planlet *Eucheuma cottonii*.

Kata Kunci: Kultur Jaringan, Rumput Laut, Pupuk PES, Conwy, Hidroponik, Tetra

Nando Adiaksa NPM. 19.03.4.1.1.000045.THE EFFECT OF DIFFERENT TYPES OF FERTILIZER ON GROWTH RATE OF SEAWEED PLANETS (*Eucheuma cottonii*) THROUGH TISSUE CULTURE IN SEAWEED TISSUE LABORATORY OF LOMBOK BPBL. Under the guidance of **Wahyu Andy Nugraha, ST, M.Sc. P.hD**

ABSTRACT

The types of fertilizers used in seaweed tissue culture are PES (Provasoli Enriched Seawater) fertilizers, Urea fertilizers, Conwy fertilizers, Hydroponic fertilizers, and NPK. All types of fertilizers contain nutrients that affect the growth rate of seaweed. For this reason, it is necessary to conduct research on the effect of different types of fertilizer on the growth rate of seaweed plantlets. The purpose of this research is to provide data that can be used as a reference in the production of seaweed seedlings through tissue culture in producing large quantities and quality seeds. This research was conducted for 60 days (2 months) at the Lombok Marine Aquaculture Fisheries Laboratory. The samples used in this study were plantlets resulting from micropogon regeneration in the laboratory. The types of fertilizers used are PES (Provasoli Enriched Seawater), Conwy, Hydroponics and Tetra. Treatment 1 (10ml PES Fertilizer) had the highest Specific Daily Growth Rate among the other treatments with an LPH value of 3.42%. The results of the Least Significant Difference Test with a level of 5%, treatment 1 (10 ml PES Fertilizer) had the most significant difference in the daily growth rate compared to the other treatments. Treatment 1 (PES Fertilizer) is the best type of fertilizer used to accelerate the growth rate of *Eucheuma cottoni* plantlets. treatment 1 (10 ml PES Fertilizer) had the most significant difference in the daily growth rate compared to the other treatments. Treatment 1 (PES Fertilizer) is the best type of fertilizer used to accelerate the growth rate of *Eucheuma cottoni* plantlets. treatment 1 (10 ml PES Fertilizer) had the most significant difference in the daily growth rate compared to the other treatments. Treatment 1 (PES Fertilizer) is the best type of fertilizer used to accelerate the growth rate of *Eucheuma cottoni* plantlets.

Keywords: Tissue Culture, Seaweed, PES Fertilizer, Conwy, Hydroponics, Tetra

