

**KAJIAN PERTUMBUHAN DAN KUALITAS RUMPUT LAUT
Caulerpa sp. YANG DIBUDIDAYAKAN PADA KEDALAMAN
DAN JARAK TANAM BERBEDA;
KAJIAN PROSPEK PENGEMBANGAN BUDIDAYA**

THE STUDY OF THE GROWTH AND QUALITY OF SEAWEED
Caulerpa sp. CULTIVATED ON DIFFERENT PLANTING
DISTANCES AND DEPTHS;
STUDY OF THE PROSPECTS OF AQUACULTURE DEVELOPMENT

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ABSTRAK

DARMAWATI. Kajian Pertumbuhan dan Kualitas *Caulerpa* sp Yang Dibudidayakan Pada Kedalaman Dan Jarak Tanam Berbeda; Kajian Prospek Pengembangan Budidaya (dibimbing oleh Andi Niartiningih, Rajuddin Syamsuddin dan Jamaluddin Jompa).

Penelitian ini bertujuan menganalisis pertumbuhan dan produksi *Caulerpa* sp yang dibudidayakan pada kedalaman air dan jarak tanam berbeda, menganalisis kandungan nutrisi *Caulerpa* sp hasil budidaya pada kedalaman air dan jarak tanam dengan umur berbeda dan mengkaji prospek pengembangan budidaya *Caulerpa* sp secara bioekologis di lingkungan laut.

Penelitian budidaya *Caulerpa* sp dilaksanakan di perairan Desa Laguruda Kabupaten Takalar, Propinsi Sulawesi Selatan dengan titik koordinat spot penelitian S: 05°26'07,9" dan E: 119°22'29,9". Metode penelitian dengan system tali tunggal apung (floating monoline method), didesain dengan menggunakan Rancangan Acak Lengkap (RAL) pola faktorial yang terdiri atas dua faktor yaitu jarak tanam per titik rumpun yaitu 20, 30 dan 40 cm dengan kedalaman berbeda: 50, 100 dan 150cm dari permukaan air. Uji kualitas *Caulerpa* sp dilaksanakan di Laboratorium Produktifitas dan Kualitas Perairan Fakultas Ilmu Kelautan dan Perikanan serta Laboratorium Nutrisi Ternak Fakultas Peternakan Universitas Hasanuddin. meliputi: kadar protein, serat kasar, kadar air, kadar abu, lemak, karbohidrat, dan kadar karotenoid. Peubah yang diamati adalah pertumbuhan, produksi dan kualitas *Caulerpa* sp. Selanjutnya dilakukan analisis Varians (ANOVA).

Hasil penelitian menunjukkan bahwa pertumbuhan dan produksi *Caulerpa* sp yang terbaik didapatkan pada jarak tanam 30 cm dengan kedalaman tanam 50 cm. Rumput laut *Caulerpa* sp hasil budidaya didapatkan kadar protein, kadar serat kasar, kadar karbohidrat dan kadar karotenoid yang optimal pada jarak tanam 30 cm dengan kedalaman 50 cm. Kadar protein, kadar serat kasar, kadar karbohidrat dan kadar karotenoid menurun seiring dengan bertambahnya kedalaman tanam. Kadar air dan kadar abu meningkat dengan bertambahnya kedalaman tanam. Kadar lemak bersifat fluktuatif. Umur panen mempengaruhi kualitas *Caulerpa* sp, sebaiknya dipanen pada umur 35 hari. Hasil analisis parameter kualitas air menunjukkan bahwa budidaya *Caulerpa* sp layak dibudidaya secara bioekologis di lingkungan laut.

Kata kunci: *Caulerpa* sp, jarak tanam, kedalaman, kualitas , pertumbuhan, produksi.

ABSTRACT

Darmawati. The Study Of The Growth And Quality of *Caulerpa* sp Cultivated on Different Planting Distances and Depths; Study Of The Prospects Of Aquaculture Development. (Supervised **Andi Niartiningih**, **Rajuddin Syamsuddin** and **Jamaluddin Jompa**).

This research aims to analyze the growth and production of *Caulerpa* sp cultivated on water depth and different planting distances, analyze nutritional *Caulerpa* sp cultivation on water depth and spacing for planting with different age and examines the prospects for the development of the cultivation of *Caulerpa* sp in bioecologys in the marine environment.

Research cultivation *Caulerpa* sp implemented in waters village Takalar Laguruda district, the province of South Sulawesi with a spot research coordinate S: 05°26'07,9" dan E: 119°22'29,9". Research methods with a single rope system floating (floating monoline method), designed by using Random Design Complete (RAL) factorial pattern consisting of two factors, namely trunks per clump point, namely 20, 30 and 40 cm depth: 50, 100 and 150 cm from the surface of the water. *Caulerpa* sp quality tests carried out in the laboratory of productivity and the quality of the waters of the Faculty of Marine Sciences and Fisheries as well as the nutrition laboratory of the livestock Husbandry Faculty of University of Hasanuddin. includes: protein, fiber, the water level, ash levels, fat, carbohydrates, and levels of carotenoids. The observed variables are growth, production and quality of *Caulerpa* sp. next conducted an analysis of variance (ANOVA).

The research results show that growth and the production of *Caulerpa* sp the best obtained at a distance planting 30 cm by depth of planting 50 cm. Seaweed *Caulerpa* sp results obtained by cultivation of protein, fiber levels, levels of carbohydrates and optimal levels of carotenoids on the planting distance 30 cm with a depth of 50 cm. Protein levels of coarse fibre, carbohydrate levels and levels of carotenoids decreases with increasing depth of planting. The water level and ash levels increased with increasing depth of planting. Fat levels are fluctuating. Harvest age affect the quality of *Caulerpa* sp, preferably harvested at the age of 35 days. The results of analysis of water quality parameters indicate that the cultivation of *Caulerpa* sp worth cultivated in bioecologys in the marine environment.

Keywords: *Caulerpa* sp, Planting distance, Depth, Quality, Growth, Production.

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