

RINGKASAN

SELVIANI SARIWATI DOKO (22390008). Karakteristik *Cookies* dengan Penambahan Tepung Rumput Laut *Eucheuma cottonii*. Di bawah bimbingan Dr. Ir. Ayub U. I. Meko, M.Si sebagai Pembimbing I dan Dewi Setiyowati Gadi, S.Pi, M.Si sebagai Pembimbing II. Program Studi Teknologi Hasil Perikanan, Fakultas Perikanan dan Ilmu Kelautan, Universitas Kristen Artha Wacana Kupang.

Cookies merupakan salah satu produk pangan olahan yang digemari masyarakat karena rasanya manis, teksturnya renyah, serta praktis dikonsumsi. Namun, *cookies* konvensional umumnya rendah serat dan hanya berfungsi sebagai makanan ringan tanpa nilai gizi tambahan. Penambahan tepung rumput laut *Eucheuma cottonii* yang kaya serat pangan, mineral, dan yodium diharapkan dapat meningkatkan nilai fungsional *cookies* sehingga menjadi pangan sehat dan fungsional. Rumput laut *Eucheuma cottonii* mengandung serat total tinggi (sekitar 70–82% dalam bentuk tepung) serta yodium yang berperan penting dalam mencegah gangguan akibat defisiensi yodium.

Penelitian ini bertujuan untuk menganalisis pengaruh penambahan tepung rumput laut terhadap karakteristik organoleptik (warna, rasa, aroma, tekstur) serta mutu kimia *cookies* (kadar air, kadar abu, kadar serat kasar, dan kadar yodium). Penelitian ini dilaksanakan pada bulan Desember 2025 - Januari 2026 yang bertempat di Laboratorium Eksakta Universitas Kristen Artha Wacana (Pengujian Organoleptik), Laboratorium Kimia Pakan Universitas Nusa Cendana Kupang dan PT. Saraswati Indo Genetech Bogor (Pengujian Mutu Kimia).

Penelitian ini menggunakan metode eksperimen dan didesain menggunakan Rancangan Acak Lengkap (RAL) dengan 4 perlakuan dan 3 kali ulangan sehingga diperoleh 12 unit percobaan. Hasil penelitian menunjukkan bahwa penambahan tepung rumput laut tidak berpengaruh nyata terhadap karakteristik organoleptik (warna, aroma, rasa dan tekstur) dan karakteristik kimia *cookies* yaitu kadar air *cookies* dengan penambahan tepung rumput laut semua perlakuan memperoleh 6,6% dan 7,3%, melebihi SNI biskuit ($\leq 5\%$). Kadar abu meningkat seiring penambahan tepung rumput laut akibat tingginya kandungan mineral alami. Kadar serat kasar meningkat (0,1–1,2%), kadar yodium juga meningkat (35,4–87,2 mcg).

Dengan demikian, penambahan tepung rumput laut *Eucheuma cottonii* dapat meningkatkan nilai gizi *cookies*, khususnya kadar serat dan yodium, sekaligus tetap diterima secara organoleptik oleh konsumen. Produk ini berpotensi mendukung diversifikasi pangan berbasis sumber daya lokal dan menjadi inovasi pangan fungsional yang sehat.

Kata kunci: *Cookies*, Tepung Rumput Laut, *Eucheuma cottonii*, Serat, Yodium.

SUMMARY

SELVIANI SARIWATI DOKO (22390008). Characteristics of *Cookies* with the Addition of *Eucheuma cottonii* Seaweed Flour. Under the guidance of Dr. Ir. Ayub U. I. Meko, M.Si. as Supervisor I and Dewi Setiyowati Gadi, S.Pi., M.Si. as Supervisor II. Fishery Product Technology Study Program, Faculty of Fisheries and Marine Sciences, Artha Wacana Christian University, Kupang.

Cookies are a processed food product favored by the public due to their sweet taste, crunchy texture, and practicality. However, conventional *cookies* are generally low in fiber and serve only as snacks without additional nutritional value. The addition of *Eucheuma cottonii* seaweed flour, which is rich in dietary fiber, minerals, and iodine, is expected to increase the functional value of *cookies*, making them a healthy and functional food. *Eucheuma cottonii* seaweed contains high total fiber (approximately 70–82% in flour form) and iodine, which plays an important role in preventing iodine deficiency disorders.

This study aimed to analyze the effect of seaweed flour addition on the organoleptic characteristics (color, taste, aroma, texture) and chemical quality of *cookies* (moisture content, ash content, crude fiber content, and iodine content). This study was conducted from December 2025 to January 2026 at the Exacta Laboratory of Artha Wacana Christian University (Organoleptic Testing), the Feed Chemistry Laboratory of Nusa Cendana University, Kupang, and PT. Saraswati Indo Genetech, Bogor (Chemical Quality Testing).

This study used an experimental method and was designed using a Completely Randomized Design (CRD) with four treatments and three replications, resulting in 12 experimental units. The results showed that the addition of seaweed flour had no significant effect on the organoleptic characteristics (color, aroma, taste, and texture) and chemical characteristics of *cookies*. The water content of *cookies* with seaweed flour addition in all treatments was 6.6% and 7.3%, respectively, exceeding the SNI ($\leq 5\%$). Ash content increased with the addition of seaweed flour, due to the high natural mineral content. Crude fiber content increased (0.1–1.2%), and iodine content also increased (35.4–87.2 mcg).

Therefore, the addition of *Eucheuma cottonii* seaweed flour can increase the nutritional value of *cookies*, particularly fiber and iodine content, while maintaining organoleptic acceptance by consumers. This product has the potential to support food diversification based on local resources and become a healthy functional food innovation.

Keywords: *Cookies*, Seaweed Flour, *Eucheuma cottonii*, Fiber, Iodine.