

ABSTRAK

KARAKTERISTIK FISIK UBI JALAR UNGU PADA LOKASI YANG BERBEDA.

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Ubi jalar ungu (*Ipomoea batatas* L.) merupakan komoditas pangan lokal yang kaya akan karbohidrat, serat, antosianin, serta vitamin A dan C, sehingga berpotensi besar sebagai bahan baku produk olahan pangan fungsional. Salah satu bentuk pengolahannya adalah pembuatan tepung ubi jalar ungu melalui proses pengeringan. Karakteristik fisik tepung yang dihasilkan dapat berbeda-beda tergantung pada lokasi tempat tumbuh ubi jalar tersebut. Penelitian ini bertujuan untuk mengetahui karakteristik fisik ubi jalar ungu dan tepungnya yang berasal dari tiga lokasi berbeda di Pulau Timor, yaitu Kabupaten Kupang, Kabupaten Timor Tengah Selatan (TTS), dan Kabupaten Malaka.

Penelitian dilaksanakan di Laboratorium Prosesing dan Eksakta, Fakultas Teknologi Pertanian, Universitas Kristen Artha Wacana Kupang. Metode yang digunakan adalah Rancangan Acak Kelompok (RAK) dengan tiga perlakuan lokasi dan tiga ulangan, sehingga diperoleh 9 unit percobaan. Data dianalisis menggunakan Analysis of Variance (ANOVA) dan uji lanjut Tukey (BNJ) pada taraf 5%. Proses pembuatan tepung meliputi pengupasan, pengecilan ukuran, pengeringan pada suhu 50°C selama 24 jam, penggilingan, pengayakan, dan pengemasan. Parameter yang diamati meliputi uji organoleptik ubi jalar (rasa, tekstur, aroma, dan warna) serta warna tepung dari ketiga lokasi.

Hasil penelitian menunjukkan bahwa perbedaan lokasi berpengaruh terhadap karakteristik fisik ubi jalar ungu dan tepungnya. Berdasarkan uji organoleptik, ubi jalar dari Kabupaten Malaka memiliki nilai rasa tertinggi (4,19), sedangkan

Kabupaten TTS unggul dalam tekstur (4,31), aroma (3,25), dan warna (4,13). Untuk kualitas tepung, warna terbaik dihasilkan dari Kabupaten TTS dengan warna ungu muda yang menonjol dan menarik, diikuti Kabupaten Kupang dengan ungu cerah, sementara Kabupaten Malaka menghasilkan tepung berwarna ungu keabu-abuan. Perbedaan karakteristik ini dipengaruhi oleh faktor topografi, jenis dan tekstur tanah, serta kondisi lingkungan tumbuh di masing-masing lokasi. Disimpulkan bahwa lokasi Kabupaten TTS menghasilkan tepung ubi jalar ungu dengan karakteristik fisik terbaik secara keseluruhan.

Kata kunci: ubi jalar ungu, tepung ubi jalar, karakteristik fisik, lokasi penanaman, Pulau Timor.

ABSTRACT

PHYSICAL CHARACTERISTICS OF PURPLE SWEET POTATO AT DIFFERENT LOCATIONS

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Purple sweet potato (*Ipomoea batatas* L.) is a local food commodity rich in carbohydrates, fiber, anthocyanins, and vitamins A and C, making it a highly potential raw material for functional food products. One form of its processing is the production of purple sweet potato flour through a drying process. The physical characteristics of the resulting flour may differ depending on the growing location of the sweet potato. This study aimed to determine the physical characteristics of purple sweet potato and its flour originating from three different locations on Timor Island, namely Kupang Regency, South Central Timor (TTS) Regency, and Malaka Regency.

The research was conducted at the Processing and Exact Laboratory, Faculty of Agricultural Technology, Artha Wacana Christian University Kupang. The method used was a Randomized Block Design (RBD) with three location treatments and three replications, resulting in 9 experimental units. Data were analyzed using Analysis of Variance (ANOVA) followed by the Tukey's Honest Significant Difference (HSD) test at the 5% significance level. The flour production process included peeling, size reduction, drying at 50°C for 24 hours, milling, sieving, and packaging. Observed parameters included organoleptic tests of sweet potato (taste, texture, aroma, and color) and the color of flour from all three locations.

The results showed that differences in growing location significantly affected the physical characteristics of purple sweet potato and its flour. Based on organoleptic evaluation, sweet potato from Malaka Regency received the highest

taste score (4.19), while TTS Regency excelled in texture (4.31), aroma (3.25), and color (4.13). Regarding flour quality, the best color was produced from TTS Regency, which yielded an attractive light purple flour, followed by Kupang Regency with a bright purple color, while Malaka Regency produced a grayish-purple flour. These characteristic differences were influenced by topographic factors, soil type and texture, and environmental growing conditions in each location. It was concluded that TTS Regency produced purple sweet potato flour with the best overall physical characteristics.

Keywords: purple sweet potato, sweet potato flour, physical characteristics, growing location, Timor Island.