

ABSTRAK

PENGARUH KANDUNGAN HARA TANAH DAN KLON TERHADAP KADAR PATI UBI KAYU (*Manihot esculenta* Crantz) DI LAMPUNG TENGAH YANG DIUKUR DENGAN METODE NERACA MASSA

Oleh

MUHAMMAD WAHYUDI

Provinsi Lampung merupakan sentra produksi ubi kayu terbesar di Indonesia. Kadar pati sangat mempengaruhi jumlah produksi tepung tapioka yang dihasilkan. Kadar pati ubi kayu dipengaruhi oleh klon, umur panen, cuaca, dan unsur hara tanah pada saat pertumbuhan sampai panen. Apabila unsur hara pada suatu lahan berkurang maka akan mempengaruhi hasil kadar pati pada tanaman ubi kayu, sehingga terjadi degradasi komponen pati. Tujuan penelitian ini adalah untuk mengetahui pengaruh kandungan hara tanah terhadap kadar pati ubi kayu dan mengetahui pengaruh klon ubi kayu yang dibudidayakan pada kondisi tanah yang berbeda terhadap kadar pati ubi kayu. Penelitian ini dilaksanakan di Laboratorium Ilmu Tanah, Fakultas Pertanian, Universitas Lampung. Penelitian dilaksanakan pada Oktober 2023 hingga Januari 2024. Penelitian dilakukan dengan perlakuan 4 jenis klon ubi kayu yaitu Klon Klantang, Daun Sembilan, Kasetsart, dan Garuda. Setiap klon diambil sebanyak 4 titik sampel ubi kayu dengan umur panen 8 bulan dan 4 titik sampel tanah di Lampung Tengah. Sampel ubi kayu diambil untuk diukur kadar pati dengan metode neraca massa, sedangkan sampel tanah diambil untuk dianalisis pH tanah, nitrogen, fosfor, kalium, dan C-organik tanah. Penelitian ini menggunakan uji analisis deskriptif dengan standar deviasi untuk mendeskripsikan hasil pengukuran kadar pati ubi kayu. Uji korelasi dilakukan untuk mengetahui pengaruh pH dan unsur hara tanah terhadap kadar pati ubi kayu. Hasil korelasi menunjukkan nitrogen berpengaruh terhadap kadar pati ubi kayu. Berdasarkan analisis deskriptif dengan standar deviasi kadar pati tertinggi terdapat pada Klon Kasetsart dan Garuda, sedangkan kadar pati terendah terdapat pada Klon Klantang dan Daun Sembilan.

Kata kunci : Kadar Pati, Neraca Massa, Nutrisi Tanah, Singkong.

ABSTRACT

THE INFLUENCE OF NUTRITION SOIL AND CLONE ON CASSAVA (Manihot esculenta Crantz) STARCH CONTENT IN CENTRAL LAMPUNG MEASURED BY THE BALANCE METHOD

By

MUHAMMAD WAHYUDI

Lampung Province is the largest cassava production center in Indonesia. Starch content greatly influences the amount of tapioca flour produced. Cassava starch levels are influenced by clone, harvest age, weather and soil nutrients from growth to harvest. If nutrients in a land are reduced, it will affect the starch content of cassava plants, resulting in degradation of the starch component. The aim of this research was to determine the effect of soil nutrient content on cassava starch levels and to determine the effect of cassava clones cultivated in different soil conditions on cassava starch levels. This research was carried out at the Soil Science Laboratory, Faculty of Agriculture, University of Lampung. The research was conducted from October 2023 to January 2024. The research conducted by 4 types of cassava clones, namely Klantang, Daun Sembilan, Kasetsart and Garuda. Each clone was taken from 4 cassava sample points with a planting age of 8 months and 4 soil sample points in Central Lampung. Cassava samples were taken to measure starch content using the mass balance method, while soil samples were taken to analyze soil pH, nitrogen, phosphorus, potassium and soil organic carbon. This research used a descriptive analysis test with standard deviation to describe the results of measuring cassava starch content. The correlation test was carried out to determine the effect of pH and soil nutrients on cassava starch levels. The correlation results showed that nitrogen had an effect on cassava starch content. Based on descriptive analysis, the highest of starch content was found in Clones Kasetsart and Garuda, while the lowest starch content was found in Clones Klantang and Daun Sembilan.

Keywords: Cassava, Mass Balance, Soil Nutrients, Starch Content.