

ABSTRAK

PENGARUH GULUDAN DAN PEMUPUKAN TERHADAP KEHILANGAN UNSUR HARA DAN C-ORGANIK AKIBAT EROSI SERTA PRODUKSI SINGKONG (*Manihot esculenta* Crantz.) TAHUN KETUJUH DI LABORATORIUM LAPANG TERPADU FAKULTAS PERTANIAN UNIVERSITAS LAMPUNG

Oleh

ANDREAS FEBRUANDO NAINGGOLAN

Singkong merupakan tanaman pangan yang kebutuhannya akan konsumsinya terus meningkat di Indonesia. Hal ini didasarkan pada peningkatan jumlah penduduk dan taraf konsumsi perkapita tahunan di Indonesia. Adapun yang menjadi tantangan adalah hilangnya unsur hara dan bahan organik tanah akibat erosi yang menimbulkan penurunan produksi singkong. Tindakan konservasi tanah seperti guludan dan pemupukan merupakan upaya untuk mengurangi terjadinya erosi. Tujuan penelitian ini untuk mengetahui pengaruh guludan dan pemupukan terhadap kehilangan unsur hara dan C-organik akibat erosi serta produksi singkong. Penelitian ini dilaksanakan pada bulan Februari—Desember 2021 di Laboratorium Lapang Terpadu Fakultas Pertanian Universitas Lampung. Penelitian ini dirancang menggunakan rancangan acak kelompok lengkap dengan 2 faktor perlakuan yaitu guludan dan pemupukan dengan 4 ulangan sehingga diperoleh 16 satuan percobaan. Hasil penelitian menunjukkan perlakuan guludan memotong lereng (G2) memberikan hasil yang lebih baik dalam mengurangi kehilangan unsur hara dan C-organik akibat erosi dibandingkan guludan searah lereng (G1), namun perlakuan guludan tidak berbeda nyata terhadap produksi singkong. Perlakuan pemberian pupuk (P1) memberikan produksi lebih tinggi dibandingkan tanpa pemberian pupuk (P0), namun tidak berbeda nyata terhadap kehilangan unsur hara dan C-organik akibat erosi.

Kata kunci : Guludan, Kehilangan Unsur Hara, Pemupukan, Singkong

ABSTRACT

THE EFFECT OF RIDGES AND FERTILIZER ON THE LOSS OF NUTRIENTS AND C-ORGANIC DUE TO EROSION AND CASSAVA PRODUCTION (*Manihot esculenta* Crantz.) SEVENTH YEAR IN INTEGRATED FIELD LABORATORY FACULTY OF AGRICULTURE UNIVERSITY OF LAMPUNG

By

ANDREAS FEBRUANDO NAINGGOLAN

Cassava is a food crop whose consumption needs continue to increase in Indonesia. This is based on the increase in the number of people and the level of annual per capita consumption in Indonesia. The challenge is the loss of nutrients and soil organic matter due to erosion which led to a decrease in cassava production. Soil conservation measures such as ridges and fertilizer are efforts to reduce erosion. The purpose of this study was to determine the effect of ridges and fertilizer on nutrient loss and C-organic due to erosion and cassava production. This research was conducted in February—December 2021 at the Integrated Field Laboratory of the Faculty of Agriculture, University of Lampung. This study was designed using a randomized block design complete with 2 treatment factors namely ridges and fertilizer with 4 replicates to obtain 16 experimental units. The results showed that the treatment of ridges mowing slopes (G2) gave better results in reducing nutrient loss and C-organic due to erosion than ridges unidirectional slopes (G1), but the treatment of ridges not significantly different from the production of cassava. Treatment of fertilizer (P1) gives higher production than without fertilizer (P0), but not significantly different from the loss of nutrients and C-organic due to erosion.

Keywords: Cassava, Fertilizer, Nutrient Loss, Ridges