PENERAPAN SISTEM PENGHILANGAN RESIDU TANAMAN DI PERKEBUNAN PALA DAN PENGARUHNYA TERHADAP KETERSEDIAAN KARBON DAN MIKROBA TANAH.

Azis A. Karim, dibawah bimbingan. Lily Ishak, dan Tri Mulya Hartati.
Program Studi Ilmu Tanah
Fakultas Pertanian Universitas Khairun

ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh penerapan system pengolahan residu tanaman terhadap ketersediaan karbon dan mikroba tanah di perkebunan pala. Penelitian ini dilaksanakan di Kelurahan Sulamadaha, Kulaba, Tubo dan Moya. Metode analisis data tentang persepsi petani melalui wawancara secara reponden terhadap petani dan karbon organic tanah secara deskriptif. Dan data total bakteri, total cendawan dan total bakteri pelarut fosfat dihitung dalam satuan CFU. Kemudian hasil penelitian menunjukan bahwa seluruh petani tidak melakukan pengolahan tanah dibawah tegakan tanaman pohon pala tetapi diikuti adanya pembakaran serasah tanaman. Analisis C-organik tanah dikategorikan rendah pada kelurahan Sulamadaha dan Kulaba dan C-organik kategori sedang berada di kelurahan Tubo dan Moya. Analisis mikroba tanah kelimpahan bakteri yang paling dominan atau tinggi berada pada kelurahan Sulamadaha dan Moya dengan ketinggian 4,8 x 10^9 CFU/g dan 7,8 x 10^9 CFU/g. Kelimpahan fungi terendah berada di kelurahan Sulamadaha dan Kulaba dengan total populasi $<10^4$ CFU/g. sedangkan total bakteri pelarut fosfat ditemukan hamper semua dikategori sedang.

Kata kunci : residu tanaman pala, C-Organik tanah, Mikroba tanah

APPLICATION OF CROP RESIDUE REMOVAL SYSTEM IN NUTMEG PLANTATIONS AND THEIR EFFECT ON CARBON AVAILABILITY AND SOIL MICROBA.

Azis A. Karim, Supervised By Lily Ishak, as Chair and Dr.Ir Tri Mulya Hartati.
Soil Science Study Program
Faculty of Agriculture, University of Khairun Ternate

ABSTRACT

The resent study aims to determine the application of plant residue removal system to the availability of carbon and soil microbobes in nutmeg plantations. This research was carried out in the villages of Sulamadaha, Kulaba, Tubo and Moya. Method of data analysis on farmer's perceptions through interview with respondent to farmers and soil organic carbon descriptively. And data on total bacteria, total fungi and total phosphate solubilizing bacteria were calculated in CFU. Then the results of the study showed that all farmers did not cultivate the soil under the nutmeg tree stands but were followed by the burning of plant litter. Soil C-organic analysis was categorized as low in Sulamadaha and Kulaba villages while C-organic was categorized as moderate in Tubo and Moya villages. Soil microbial analysis of the most dominant or high bacterial abundance was in Sulamadaha and Moya villages with a height of 4,8 x 10^9 CFU/g and 7,8 x 10^9 CFU/g. The lowest abundance of fungi was in the sub-districts Sulamadaha and Kulaba with a total population of <10^4 CFU/g. while the total phosphate solubilizing bacteria were found in almost all moderate categories

Key words : nutmeg plant residue, Soil C-organic, soil microba