ABSTRAK

Anur Wulan, 2025. Optimalisasi Tanah Berpasir dengan Pengaplikasian Zeolit dan Pupuk Kandang Ayam Dalam Meningkatkan Pertumbuhan dan Hasil Ubi Jalar (*Ipomoea batatas*). Di bawah bimbingan Cecep Hidayat dan Yati Setiati Rachmawati.

Ubi jalar (*ipomoea batatas*) merupakan tanaman pangan alternatif berjenis umbi yang memiliki sumber karbohidrat. Pertumbuhan dan hasil ubi jalar pada tanah pasca galian batuan dapat dilakukan dengan aplikasi zeolit dan pupuk kandang ayam. Zeolit berperan dalam mengikat unsur hara tersedia dan pupuk kandang ayam menyediakan unsur hara pada tanah. Tujuan pada penelitian ini yaitu mengetahui pengaruh interaksi zeolit dan pupuk kandang ayam dalam optimalisasi tanah berpasir serta pertumbuhan dan hasil ubi jalar. Penelitian dilakukan dengan metode Rancangan Acak Kelompok Faktorial dengan 2 faktor dan 4 ulangan. Faktor pertama yaitu : z1 : kontrol, z2 : 0,5 t ha^{-1} zeolit, z3 : 1 t ha^{-1} zeolit dan faktor kedua yaitu : p1 : kontrol, p2 : 15 t ha^{-1} pupuk kandang ayam, p3 : 25 t ha^{-1} pupuk kandang ayam. Hasil penelitian menunjukan adanya interaksi zeolit dan pupuk kandang ayam pada tinggi tanaman dan secara mandiri perlakuan pupuk kandang ayam berpengaruh pada luas daun. Tidak terjadi interaksi pada parameter Nisbah Pupus Akar (NPA), indeks panen, bobot umbi, dan tingkat kemanisan.

Kata kunci : Ubi Jalar, Zeolit, PKA, Tanah Berpasir.

ABSTRACT

Anur Wulan, 2025. Optimizing Sandy Soil with the Application of Zeolite and Chicken Manure to Increase Growth and Yield of Sweet Potatoes (*Ipomoea batatas*). Under the guidance of Cecep Hidayat and Yati Setiati Rachmawati.

Sweet potato (*Ipomoea batatas*) is an alternative tuber type food crop that has a source of carbohydrates. The growth and yield of sweet potatoes on post-rock excavation soil are carried out by applying zeolite and chicken manure. Zeolite plays a role in binding available nutrients and chicken manure provides nutrients to the soil. The purpose of this study was to determine the effect of the interaction of zeolite and chicken manure in optimizing sandy soil and the growth and yield of sweet potatoes. The purpose of this research is to determine the effect of the interaction between zeolite and chicken manure on optimizing sandy soil as well as the growth and yield of sweet potatoes. The research was using a factorial randomized block design method with 2 factors and 4 replications. The first factor is: z1: control, z2: 0,5 t ha^{-1} zeolite, z3: 1 t ha^{-1} zeolite and the second factor is: p1: control, p2: 15 t ha^{-1} chicken manure, p3: 25 t ha^{-1} chicken manure. The results showed an interaction between zeolite and chicken manure on plant height and independently chicken manure treatment affected leaf area. There was no interaction on the root-shoot ratio, harvest index, tuber weight, and sweetness level ratio.

Keywords : Sweet Potato, Zeolite, Chicken Manure, Sandy Soil.