

ABD HAMID - 210311100132 - Pengaruh Pemberian Bahan Pembenah Tanah Pada Pertumbuhan dan Hasil Kacang Tunggak (*Vigna unguiculata* L. Walp.) di bawah bimbingan **Dr. Agr. Eko Setiawan, S.P., M.Si dan Ir. Slamet Supriyadi, M.Si**

ABSTRAK

Kacang tunggak dapat memberikan keuntungan bagi petani dengan budidaya yang baik. dPemberian pembenah tanah dapat memperbaiki karakteristik media tanam dan akhirnya ketersediaan unsur hara yang diperlukan tanaman. Tujuan penelitian ini untuk mengetahui pengaruh pembenah tanah tersebut terhadap pertumbuhan dan hasil produksi kacang tunggak terhadap pemberian pembenah tanah. Penelitian ini menggunakan metode Rancangan Acak Lengkap (RAL) non faktorial yang terdiri atas tujuh taraf perlakuan. yaitu: P0(kontrol (tanah 100%),P1(tanah + arang sekam 1% (100 g), P2(Tanah + arang sekam 1% (100 gram) + abu tebu 2% (200 g), P3(tanah + abu (2%) (200 g),P4(tanah + silika ekstrak abu ampas tebu 0,5% (50 g), P5(tanah + pupuk kandang sapi 1% (100 g) dan P6(tanah + pupuk kandang sapi 1% (100 g) + abu tebu 2% (200 g). Hasil penelitian menunjukkan pemberian pembenah tanah berpengaruh nyata terhadap bobot isi tanah, porositas tanah pertumbuhan panjang dan jumlah daun (1-4 dan 6 MST) jumlah cabang, bobot polong dan biji,bobot berangkasan basah, dan kering (daun, akar) dan volume akar, Namun berbeda nyata pada (kandungan C-Organik dan kemasaman tanah). pertumbuhan panjang dan jumlah daun (5 MST) bobot berangkasan kering (akar). Kadar protein biji pada perlakuan P6 cenderung meningkat.

Kata kunci: kacang tunggak, sifat tanah, silika, abu tebu, arang sekam, pupuk kandang.

ABD HAMID - 210311100132 - The Effect of Soil Conditioner Application on the Growth and Yield of Cowpea (*Vigna unguiculata* L. Walp.) under the guidance of **Dr. Agr. Eko Setiawan, S.P., M.Si and Ir. Slamet Supriyadi, M.Si**

ABSTRCT

Cowpeas can benefit farmers through effective and efficient cultivation, provided they provide sufficient soil amendments to the growing medium and nutrients for plant growth. The purpose of this study was to determine the effect of these amendments on cowpea growth and yield. A non-factorial completely randomized design (CRD) was used in this study, consisting of seven treatment levels. namely: P0 (control (100g soil), P1 (soil + 1% rice husk charcoal (100g), P2 (soil + 1% rice husk charcoal (100g) + 2% sugar cane ash (200g), P3 (soil + ash (2%) (200g), P4 (soil + silica extract of 0.5% bagasse ash (50g), P5 (soil + 1% cow manure (100g) and P6 (soil + 1% cow manure (100g) + 2% sugar cane ash (200g). The results of the study showed that the provision of soil conditioner had a significant effect on soil bulk density, soil porosity, growth in length and number of leaves (1 WAP to 4 WAP and 6 WAP), number of branches, pod and seed weight, wet and dry weight of shoots (leaves, roots), root volume, but significantly different in (organic C content and soil acidity). growth in length and number of leaves (5 MST) dry weight of shoots (roots). The protein content of seeds in the P6 treatment tended to increase.

Keywords: cowpea, soil properties, silica, sugarcane ash.