

**PENGARUH BERBAGAI MACAM MEDIA TANAM POT ORGANIK  
TERHADAP PERTUMBUHAN DAN PRODUKTIVITAS  
TANAMAN KACANG TUNGGAK (*Vigna unguiculata*)  
DI LAHAN BERPASIR**

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**INTISARI**

Penelitian ini bertujuan untuk mengetahui pertumbuhan dan produktivitas kacang tunggak yang ditanam di lahan pasir dengan perbaikan lingkungan tumbuh melalui penggunaan pot organik sebagai media tanam. Tiga blok lahan pasir (sebagai ulangan) ditanami kacang tunggak dengan menggunakan 5 macam pot organik sebagai media tanam terbuat dari kompos kotoran ayam, kambing, dan sapi, *sludge* biogas, dan sampah organik, serta kontrol (tanpa pot). Tiap blok lahan pasir dibagi menjadi 6 plot secara acak sesuai dengan perlakuan macam pot organik. Lima buah pot organik ditanam dalam tiap plot yang telah diisi tanah kemudian ditanam 2 biji kacang tunggak. Pemanenan dilakukan pada minggu ke-8. Variabel tinggi tanaman dan jumlah daun diamati setiap minggu, nodul akar dipisahkan dari akar, serta produksi hijauan dan biji ditimbang pada saat akhir penelitian. Data dianalisis dengan analisis variansi menurut rancangan blok acak lengkap dan perbedaan rerata diuji *Duncan's*. Hasil penelitian menunjukkan bahwa tinggi tanaman (54,20 cm) dan bintil akar (2,12 g) kacang tunggak yang ditanam pada media pot organik kompos kotoran ayam lebih tinggi ( $P < 0,05$ ) dibanding pot organik yang lain, tetapi macam pot organik tidak berpengaruh nyata terhadap jumlah daun dan produksi tanaman. Lahan di blok II memiliki pengaruh lebih baik terhadap tinggi tanaman (58,20 cm), jumlah daun (134,41), produksi bahan kering (41,23 g), produksi bahan organik (39,18g), dan produksi protein (5,65 g) dibanding blok lahan yang lainnya. Dapat disimpulkan bahwa media tanam pot organik ayam lebih baik dibandingkan pot organik lainnya. Penggunaan media tanam pot organik pada lahan pasir akan memperbaiki pertumbuhan dan produktivitas tanaman kacang tunggak.

Kata kunci: Kacang tunggak, Pot organik, Lahan berpasir, Pupuk organik, Pertumbuhan tanaman, Produktivitas tanaman, Bintil akar.

**THE EFFECT OF DIFFERENT TYPES OF ORGANIC POTS AS  
PLANTING MEDIUMS ON GROWTH AND PRODUCTIVITY  
OF COWPEA (*Vigna unguiculata*) IN SANDY LAND**

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**ABSTRACT**

The study aimed to determine the growth and productivity of cowpea were planted in the sandy land with the planting environmental improvement through the use of organic pots as planting media. Three blocks of sandy land (for replication) was planted cowpea seed. Five organic pots made from compost from chicken, goat, and cow manure, biogas sludge, and leaf compost, and control (without pot). Each block of sandy land was randomly divided into 6 plots. Five organic pots planted in every plot that fill by soil and 2 seeds of cowpea were planted. Harvesting was done when cowpea crop age 8 weeks after planting. Plant height and number of leaf were observed weekly, the nodules were taken from root, forages and grain production were weighted at the end of study. Data were analyzed using variance for complete randomized block design and the difference between means was tested using Duncan's. The results showed that plant height (54,20 cm) and nodule number (2,12 g) cowpea planted in planting mediums from chicken manure were higher than other organic pots, however the types of organic pots didn't have significantly effect on number of leaf and plant production. Plant height (58,20 cm), number of leaf (134,41), dry matter production (41,21 g), organic material production (39,18 g), and crude protein production (5,65 g) cowpea planted in sandy land in block II were significant higher than that in other blocks. Organic pot made from chicken manure was better than another organic pots. The use of organic pots as planting mediums for planting environmental improvement in the sandy land can improve the growth and productivity of cowpea.

**Key words:** Cowpea, Organic pot, Sandy land, Organic fertilizer, Plant growth, Plant productivity, Nodule.