

**PENGARUH KOMPOS BLOTONG PLUS PUPUK KANDANG SAPI DALAM
MEMPERBAIKI SIFAT KIMIA ULTISOL DAN PERTUMBUHAN PEMBIBITAN
UTAMA KELAPA SAWIT
(*Elaeis Guineensis* Jacq.)**

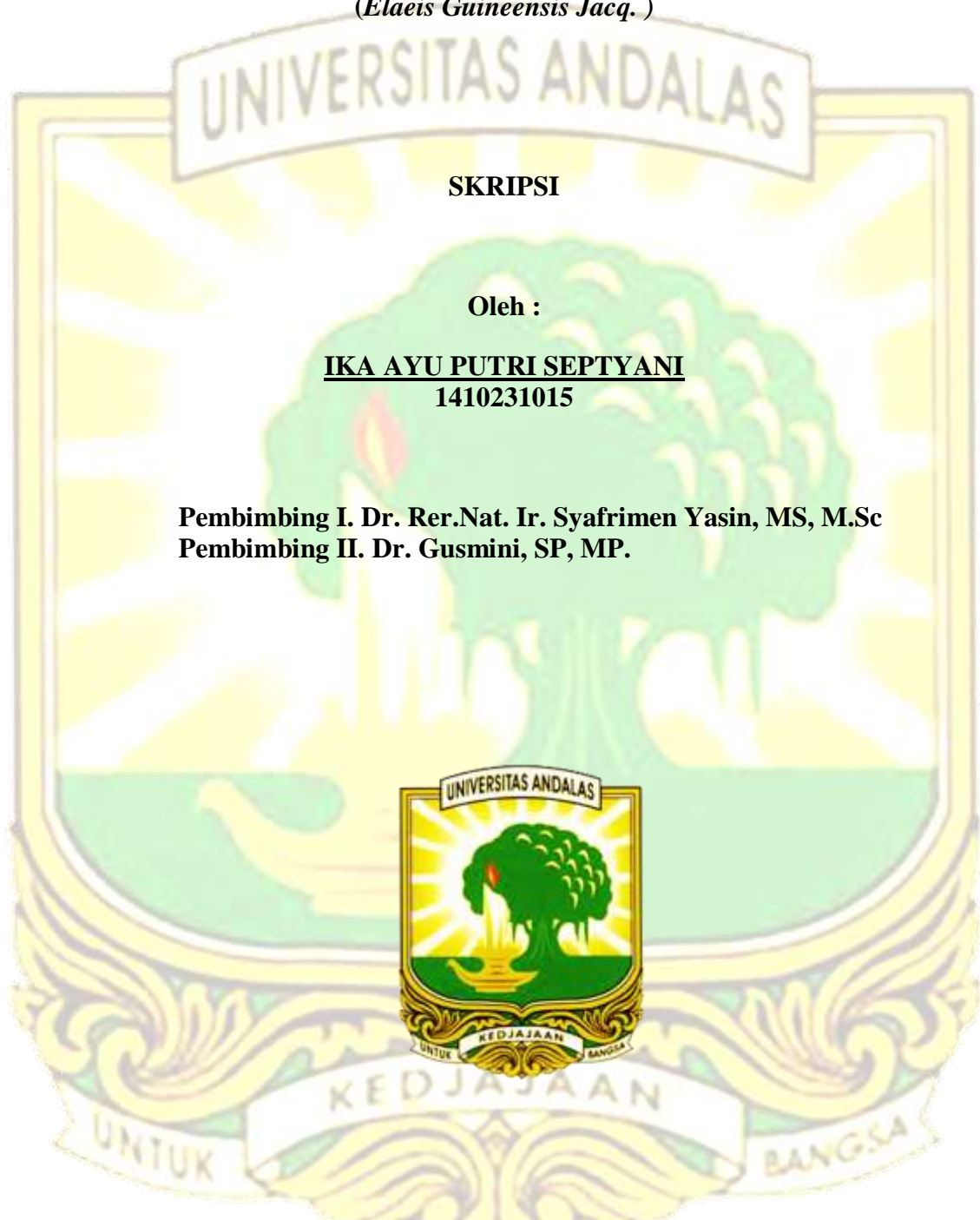
UNIVERSITAS ANDALAS

SKRIPSI

Oleh :

IKA AYU PUTRI SEPTYANI
1410231015

Pembimbing I. Dr. Rer.Nat. Ir. Syafrimen Yasin, MS, M.Sc
Pembimbing II. Dr. Gusmini, SP, MP.



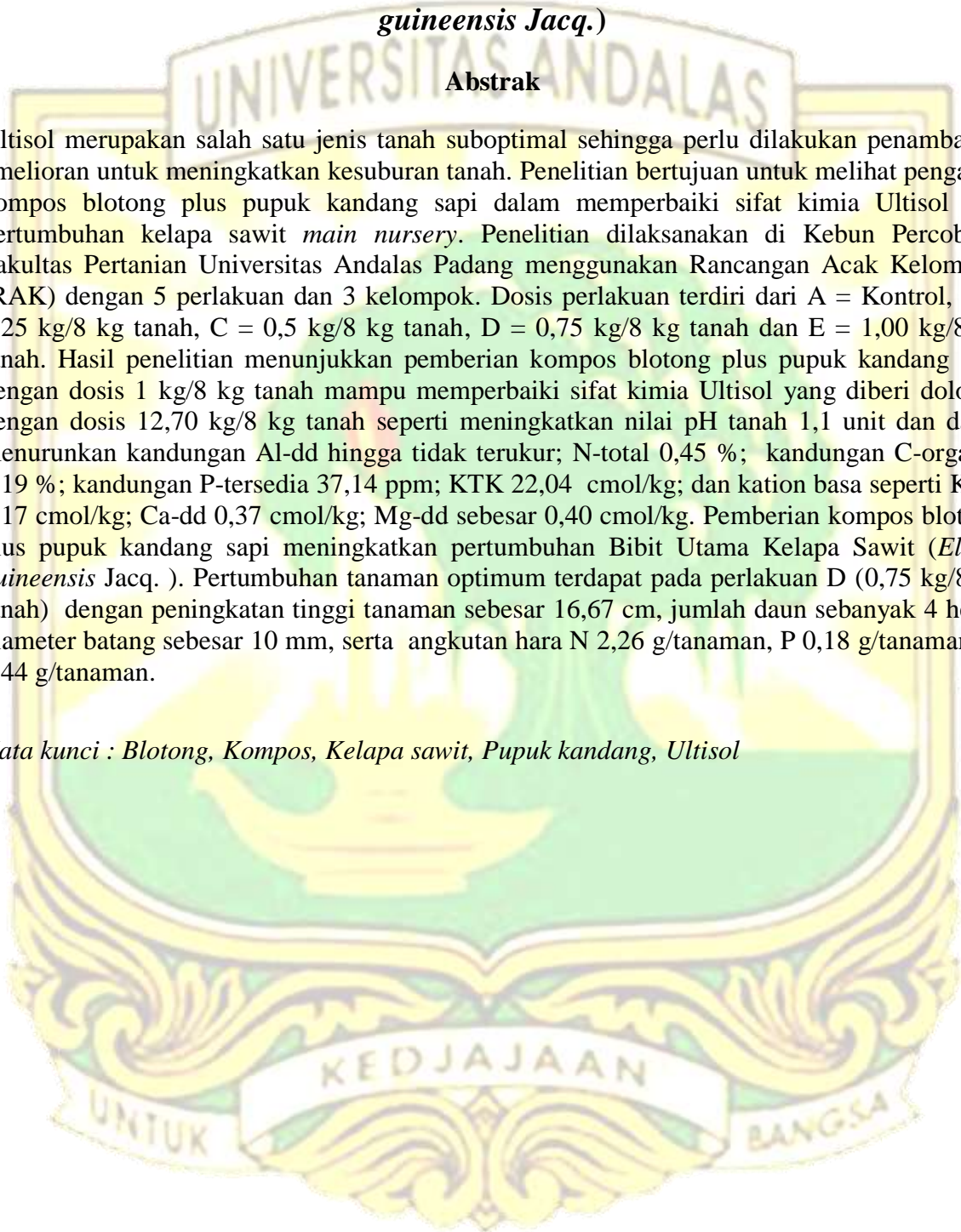
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guineensis* Jacq.)**

Abstrak

Ultisol merupakan salah satu jenis tanah suboptimal sehingga perlu dilakukan penambahan amelioran untuk meningkatkan kesuburan tanah. Penelitian bertujuan untuk melihat pengaruh kompos blotong plus pupuk kandang sapi dalam memperbaiki sifat kimia Ultisol dan pertumbuhan kelapa sawit *main nursery*. Penelitian dilaksanakan di Kebun Percobaan Fakultas Pertanian Universitas Andalas Padang menggunakan Rancangan Acak Kelompok (RAK) dengan 5 perlakuan dan 3 kelompok. Dosis perlakuan terdiri dari A = Kontrol, B = 0,25 kg/8 kg tanah, C = 0,5 kg/8 kg tanah, D = 0,75 kg/8 kg tanah dan E = 1,00 kg/8 kg tanah. Hasil penelitian menunjukkan pemberian kompos blotong plus pupuk kandang sapi dengan dosis 1 kg/8 kg tanah mampu memperbaiki sifat kimia Ultisol yang diberi dolomit dengan dosis 12,70 kg/8 kg tanah seperti meningkatkan nilai pH tanah 1,1 unit dan dapat menurunkan kandungan Al-dd hingga tidak terukur; N-total 0,45 %; kandungan C-organik 2,19 %; kandungan P-tersedia 37,14 ppm; KTK 22,04 cmol/kg; dan kation basa seperti K-dd 0,17 cmol/kg; Ca-dd 0,37 cmol/kg; Mg-dd sebesar 0,40 cmol/kg. Pemberian kompos blotong plus pupuk kandang sapi meningkatkan pertumbuhan Bibit Utama Kelapa Sawit (*Elaeis guineensis* Jacq.). Pertumbuhan tanaman optimum terdapat pada perlakuan D (0,75 kg/8 kg tanah) dengan peningkatan tinggi tanaman sebesar 16,67 cm, jumlah daun sebanyak 4 helai, diameter batang sebesar 10 mm, serta angkutan hara N 2,26 g/tanaman, P 0,18 g/tanaman, K 1,44 g/tanaman.

Kata kunci : Blotong, Kompos, Kelapa sawit, Pupuk kandang, Ultisol



INFLUENCE OF BLOTONG PLUS COW MANURE COMPOST FOR IMPROVING CHEMICAL PROPERTIES OF ULTISOLS AND GROWTH OF OIL PALM SEEDLING AT MAIN NURSERY (*Elaeis guineensis* Jacq.)

Abstract

Ultisols is one of suboptimal soil that needs ameliorant for improving the soil fertility. The aim of this research was to investigate the influence of blotong plus cow manure compost for improving chemical properties of Ultisols and growth of oil palm seedling at main nursery. This research was conducted at Agriculture Experiment Station, Andalas University Limau Manis Padang. This research consisted of five level of compost (A= 0 kg, B = 0.25 kg, C = 0.50 kg, D = 0.75 kg, and E = 1.00 kg per pot) with three replications. The treatment units were allocated based on Randomized Block Design (RBD). The results showed that application of blotong plus cow manure compost (1.00 kg per pot) could improve chemical properties of Ultisols applied with dolomite (12.70 kg per pot) increased pH by 1.1 unit, total N by 0.45 %, organic C by 2.19 %, available P by 37.14 ppm, CEC by 22.04 cmol/kg and basic cations such as exchangeable Ca by 0.37 cmol/kg, exchangeable K by 0.17 cmol/kg, exchangeable Mg by 0.40 cmol/kg and decrease exchangeable Aluminium until unmeasured. Blotong plus cow manure compost increased growth of oil palm seedling at main nursery. Application of 0.75 kg compost gave the optimum growth of oil palm seedlings. It showed that the crop height increased by 16.67 cm, leaves by 4, stem diameter by 10 mm, N content by 2.26 g/crop, P content by 0.18 g/crop, and K content by 1.44 g/crop, compared to control.

Keyword :Blotong, Compost, cow manure, oil palm, Ultisols

