

**PENGARUH BERBAGAI PENGOLAHAN TANAH DAN PEMBERIAN  
BERBAGAI MACAM PUPUK KANDANG TERHADAP PERTUMBUHAN DAN  
PRODUKSI TANAMAN JAGUNG MANIS (*Zea mays saccharata Sturt L*) DI  
INCEPTISOL TERNATE**

**Rosita A. Majid<sup>1</sup>\*, Idris Abd Rachman<sup>2</sup>, Asrul Dedy Ali Hasan<sup>2</sup>**  
Jurusan Ilmu Tanah, Fakultas Pertanian, Universitas Khairun Ternate  
\*Email: rositaahmadmajid30@gmail.com

**ABSTRAK**

Tanaman jagung yang dalam bahasa ilmiahnya disebut (*Zea mays saccharata Sturt L*), adalah salah satu jenis tanaman biji-bijian yang menurut sejarahnya berasal dari Amerika. Jagung merupakan bahan pangan pokok kedua setelah padi di Indonesia, jagung secara spesifik merupakan tanaman pangan yang sangat bermanfaat bagi kehidupan manusia maupun hewan. Penelitian ini bertujuan untuk mengetahui pengaruh berbagai pengolahan tanah dan pemberian pupuk kandang ayam dan pupuk kandang sapi terhadap pertumbuhan, produksi tanaman jagung manis dan sifat fisik tanah di Inceptisol Ternate. Penelitian ini menggunakan metode rancangan acak kelompok (RAK) faktorial. Dimana faktor pertama adalah pupuk kandang (K) Sedangkan faktor kedua adalah pengolahan tanah (R), Terdapat 6 kombinasi yang diulang sebanyak 3 kali sehingga terdapat 18 unit percobaan. Analisa data menggunakan Analisis Varian (Anova) bila terdapat pengaruh nyata dilanjutkan uji BNJa 0,05. Hasil penelitian menunjukkan Perlakuan pemberian berbagai pupuk kandang dan pengolahan tanah memberikan pengaruh tidak nyata terhadap parameter pertumbuhan baik tinggi tanaman, jumlah daun, berat jagung dengan klobot dan berat jagung tanpa klobot serta sifat fisik tanah baik bulk density, partikel density, field capacity dan porositas. Pemberian kombinasi pupuk kandang dan pengolahan tanah memberikan pengaruh tidak nyata terhadap parameter pertumbuhan baik tinggi tanaman, jumlah daun, berat jagung dengan klobot dan berat jagung tanpa klobot serta sifat fisik tanah baik bulk density, partikel density, field capacity dan porositas. Produksi jagung manis tertinggi 16,5 ton/ha dan yang terendah yaitu 12,5 ton/ha.

Kata Kunci : inceptisols, jagung manis, Pupuk kandang ayam, pupuk kandang sapi, pengolahan tanah, sifat fisik tanah.

**THE EFFECT OF VARIOUS SOIL TREATMENT AND PROVIDING  
VARIOUS KINDS OF COP FERTILIZER ON THE GROWTH AND  
PRODUCTION OF SWEET CORN PLANTS (*Zea mays saccharata Sturt L*) IN  
INCEPTISOL TERNATE**

**Rosita A. Majid<sup>1)</sup>\*, Idris Abd Rachman<sup>2)</sup>, Asrul Dedy Ali Hasan<sup>2)</sup>**

Department of Soil Science , Faculty of Agriculture, Khairun Ternate University

\* Email: rositaahmadmajid30@gmail.com

**ABSTRACT**

Corn plant, which in scientific language is called (*Zea mays saccharata Sturt L*), is a type of grain plant which historically originated from America. Corn is the second staple food after rice in Indonesia, corn is specifically a food plant that is very beneficial for human and animal life. This study aims to determine the effect of various soil cultivation and the provision of chicken manure and cow manure on growth and production of sweet corn plants. and soil physical properties at Inceptisol Ternate. This research used factorial randomized block design (RBD). Where the first factor is manure (K) while the second factor is soil cultivation (R), there are 6 combinations that are repeated 3 times so that there are 18 experimental units. Analysis of data using analysis of variance (ANOVA) if there is a real effect, then continue with the BNJa 0.05 test. The results showed that the treatment of various manure and soil processing had no significant effect on the growth parameters of both plant height, number of leaves, weight of corn with husks and weight of corn without husks and physical properties of soil, both soil volume weight, soil particle density, field capacity. and porosity. The combination of manure and soil treatment gave no significant effect on the growth parameters of both plant height, number of leaves, weight of corn with husks and weight of corn without husks as well as physical properties of soil, both soil volume weight, soil particle density, field capacity and porosity. The highest sweet corn production was 16.5 tons / ha and the lowest was 12.5 tons / ha.

Keywords: inceptisols, sweet corn, chicken manure, cow manure, tillage, soil physical properties.