

ABSTRAK

Tanah Madura memiliki kandungan bahan organik serta N-total tanah yang berada pada kelas yang sangat rendah yaitu <2%. Pemberian pupuk kandang sapi dan kompos jerami dapat meningkatkan pertumbuhan tanaman, produktivitas tanaman serta dapat memperbaiki kesuburan tanah. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian pupuk kandang sapi dan kompos jerami terhadap serapan hara N, pertumbuhan dan produksi tanaman jagung Lokal Tambin dan Hibrida Bisi-2. Penelitian dilaksanakan di lahan tegal jenis vertisol Dusun Candi Desa Gili Timur Kecamatan Kamal. Penelitian ini dilaksanakan pada bulan Agustus 2021 – Februari 2022. Percobaan dirancang dengan Rancangan Acak Kelompok (RAK), perlakuan dicoba pada 2 varietas jagung yaitu jagung Hibrida Bisi-2 (H) dan Lokal tambin (L) yang terdiri atas tanpa bahan organik (P1), pupuk kandang sapi (P2), kompos jerami (P3). Hasil Penelitian menunjukkan bahwa pemberian pupuk dan kompos jerami berpengaruh tidak nyata terhadap sifat kimia, pertumbuhan tanaman dan produksi tanaman jagung Hibrida Bisi-2, Pemberian pupuk kandang sapi dan kompos jerami berpengaruh nyata terhadap tinggi tanaman, luas daun, bobot biji pertanaman, klorofil tanaman, protein jagung, N-total tanah dan C-organik tanaman jagung Lokal. Secara umum perlakuan pupuk kandang sapi merupakan perlakuan terbaik pada variabel pengamatan tinggi tanaman, luas daun, dan klorofil tanaman jagung Lokal Tambin.

kata kunci : Jagung, Kompos Jerami, Nitrogen, Pupuk Kandang Sapi, Serapan Hara, Vertisol

ABSTRACT

Soil in Madura has low organic matter and total N content, which is <2%. The application of cow manure and straw compost may increase plant growth, plant productivity and improve soil fertility. The objective of this study was to investigate effect of cow manure and straw compost on N uptake, growth and yield of two varieties of maize, local Tambin and Bisi-2 hybrid. Research was carried out from August 2021 to February 2022 on Candi Hamlet, Gili Timur Village, Kamal District, located in an altitude of 18 m above sea levels. The experiment was arranged on a Randomized Block Design (RBD) consisting three treatments, namely without cow manure and straw compost (P1), with cow manure (P2), and with straw compost (P3). All treatments were applied on two corn varieties, Tambin (local variety) and Bisi-2 (hybrid variety). The results showed that the application of fertilizer and straw compost had no significant effect on chemical soil properties, plant growth and yield of Bisi-2 Hybrid corn. The application of cow manure and straw compost also had no significant effect on plant dry weight, total N in plant, N uptake, total N in soil and soil pH of local Tambin corn plants. The application of cow manure and straw compost had a significant effect on plant height, leaf area, seed weight, chlorophyll and protein content, total N in soil and C-organic under the local corn. In general, cow manure treatment had best results on plant height, leaf area, and chlorophyll content of local Tambin..

Keywords: Cow Manure, Corn, Nitrogen, Nutrient uptake, Straw Compost, Vertisol