

ABSTRAK

KAJIAN AKUMULASI BIOMASSA, KANDUNGAN K DAN KUALITAS HASIL JAGUNG MANIS (*Zea mays saccharata* Sturt.) AKIBAT APLIKASI ECO-ENZYME DAN PUPUK ORGANIK CAIR

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Produksi jagung manis di Provinsi Lampung sejak tahun 2020-2024 mengalami fluktuasi sehingga diperlukan upaya untuk meningkatkan hasil dan kualitas panen jagung manis. Salah satu upaya yang dapat dilakukan yaitu dengan mengaplikasikan *eco-enzyme* dan pupuk organik cair pada tanaman. Pupuk organik cair yang digunakan pada penelitian ini berbahan dasar ekstrak limbah udang, ekstrak pukan ayam dan ekstrak kascing. Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) yang disusun secara faktorial dengan faktor pertama *eco-enzyme* dan faktor kedua pupuk organik cair. Hasil penelitian ini menunjukkan bahwa pemberian *eco-enzyme* 2 ml/L menjadi konsentrasi terbaik dalam meningkatkan pertumbuhan jumlah daun pada umur 4, 5, 6 MST, peningkatan bobot brangkasan segar, bobot brangkasan segar vegetatif maksimum, bobot brangkasan kering, bobot tongkol berkelobot, indeks panen, kadar brix dan susut bobot tongkol. Pemberian POC (ekstrak limbah udang + ekstrak pukan ayam + kascing) 150 ml/L menjadi dosis terbaik dalam meningkatkan pertumbuhan jumlah daun pada umur 4 dan 6 MST, peningkatan bobot brangkasan segar, bobot brangkasan segar vegetatif maksimum, bobot brangkasan kering, bobot tongkol berkelobot, bobot ubinan (2x2), indeks panen, kadar brix dan susut bobot tongkol. Hasil penelitian ini menunjukkan adanya interaksi antara *eco-enzyme* dan pupuk organik cair yang ditandai dengan meningkatnya bobot tanpa kelobot jagung manis dan bobot brangkasan kering vegetatif maksimum.

Kata Kunci: Jagung manis, *eco-enzyme*, pupuk organik cair limbah udang, pupuk organik cair pukan ayam, pupuk organik cair kascing, brix

ABSTRACT

STUDY OF BIOMASS ACCUMULATION, K CONTENT, AND QUALITY OF SWEET CORN (*Zea mays saccharata* Sturt.) AS A RESULT OF ECO-ENZYME AND LIQUID ORGANIC FERTILIZER APPLICATION

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Sweet corn production in Lampung Province from 2020 to 2024 has fluctuated, necessitating efforts to increase the yield and quality of sweet corn harvests. One approach is to apply eco-enzymes and liquid organic fertilizer to the plants. The liquid organic fertilizer used in this study was based on shrimp waste extract, chicken manure extract, and earthworm extract. This study employed a Randomized Block Design (RBD) arranged in a factorial design, with the first factor being eco-enzyme and the second factor being liquid organic fertilizer. The results of this study indicate that the application of 2 ml/L of eco-enzyme is the best concentration for increasing the number of leaves at 4, 5, and 6 weeks after planting (WAP), increasing fresh cob weight, maximum vegetative fresh cob weight, dry cob weight, cob weight, harvest index, brix content, and cob weight loss. The application of POC (shrimp waste extract + chicken manure extract + earthworm castings) at 150 ml/L was the optimal dose for increasing leaf number at 4 and 6 weeks after planting, fresh cob weight, maximum vegetative fresh cob weight, dry cob weight, cob weight with husk, cob weight (2x2), harvest index, brix content, and cob weight loss. The results of this study indicate an interaction between eco-enzymes and liquid organic fertilizer, as evidenced by an increase in the weight of sweet corn without husks and maximum dry vegetative cob weight.

Keywords: Sweet corn, eco-enzyme, liquid organic fertilizer from shrimp waste, liquid organic fertilizer from chicken manure, liquid organic fertilizer from earthworms, brix