ABSTRAK

PENGARUH PEMBERIAN *ECO ENZYME*, PUPUK ORGANIK CAIR EKSTRAK PUKAN AYAM, EKSTRAK LIMBAH UDANG DAN EKSTRAK KASCING TERHADAP PERTUMBUHAN DAN HASIL TANAMAN JAGUNG MANIS (*Zea mays saccharata* Sturt.)

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Tanaman jagung manis (*Zea mays saccharata* Sturt.) sebagai komoditas pertanian hortikultura banyak dibudidayakan oleh masyarakat karena memiliki nilai ekonomi yang tinggi dan sebagai sumber pangan yang penting bagi masyarakat. Penelitian ini bertujuan mengetahui pengaruh pemberian *eco enzyme* dan pupuk organik cair (POC) terhadap pertumbuhan dan hasil jagung manis (*Zea mays saccharata* Sturt.). Penelitian menggunakan rancangan acak kelompok (RAK) faktorial dengan dua faktor, yaitu konsentrasi *eco enzyme* (0, 1, dan 2 ml/L) dan perlakuan tanpa POC, POC pupuk kandang ayam 150 ml/L, serta kombinasi POC limbah udang + pupuk kandang ayam + kascing (150 ml/L). Hasil penelitian menunjukkan bahwa *eco enzyme* berpengaruh nyata terhadap tinggi tanaman, jumlah daun, diameter batang, dan percepatan *tasseling*, sedangkan POC berpengaruh signifikan terhadap pertumbuhan vegetatif, kehijauan daun, bobot biji, dan hasil panen. Perlakuan terbaik diperoleh pada kombinasi *eco enzyme* 2 ml/L dengan POC kombinasi 150 ml/L yang menghasilkan pertumbuhan dan hasil jagung manis tertinggi. Penggunaan *eco enzyme* dan POC terbukti efektif meningkatkan produktivitas jagung manis serta berpotensi sebagai alternatif pupuk ramah lingkungan.

Kata Kunci: *Jagung manis, eco enzyme, pupuk organik cair, pertumbuhan,, hasil panen*

ABSTRACT

EFFECT OF GIVING ECO ENZYME, LIQUID ORGANIC FERTILIZER EXTRACTED FROM CHICKEN MANURE, SHRIMP WASTE EXTRACT, AND VERMICOMPOST EXTRACT ON GROWTH AND YIELD OF SWEET CORN (*Zea mays saccharata* Sturt.)

By

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Sweet corn (*Zea mays saccharata* Sturt.) is a high-value horticultural commodity that is widely cultivated as an important food source. This study aimed to evaluate the effects of eco enzyme and various liquid organic fertilizers (LOF) on the growth and yield of sweet corn. A Factorial Randomized Block Design (RBD) was employed, examining two factors: eco enzyme concentrations (0, 1, and 2 ml/L) and LOF treatments (no LOF; LOF from chicken manure at 150 ml/L; and a combined LOF of shrimp waste, chicken manure, and vermicompost at 150 ml/L). The results showed that eco enzyme significantly influenced plant height, number of leaves, stem diameter, and tasseling acceleration. Furthermore, the LOF treatments had a significant impact on vegetative growth, leaf greenness, seed weight, and final harvest yield. The highest sweet corn growth and yield were achieved with the combination treatment of 2 ml/L eco enzyme and the combined LOF at 150 ml/L. The findings demonstrate that the application of eco enzyme and LOF is effective in increasing sweet corn productivity and offers a potential alternative as an environmentally friendly fertilizer.

Keywords: *Sweet corn, eco enzyme, liquid organic fertilizer, growth, yield*