Abstract. This study evaluated the effect of solid swiftlet manure (guano) on the growth and seedling quality of cocoa (Theobroma cacao L.) grown in polybags. The experiment was conducted at the Experimental Garden of the Faculty of Agriculture, Universitas Batanghari, Jambi, from September 2025 to February 2026. A completely randomized design was used with five doses of solid swiftlet manure: 0, 75, 100, 125, and 150 g per 4 kg growing medium. Each treatment was replicated three times. Observed variables included plant height, stem diameter, root dry weight, shoot dry weight, growing-medium water content, total leaf area, and Dickson seedling quality index. Data were analyzed by analysis of variance followed by Duncan's New Multiple Range Test at 5%. The 150 g/polybag treatment produced the highest numerical values for plant height (57.31 cm), stem diameter (10.47 mm), root dry weight (16.40 g), shoot dry weight (79.91 g), total leaf area (199.26 cm²), and seedling quality index (9.31). The seedling quality index at 150 g/polybag was not significantly different from 125 g/polybag (8.66). Growing-medium water content increased numerically with dose, although all treatments were placed in the same post-hoc group. Overall, 125–150 g/polybag was the most favorable dose range for cocoa seedling growth and quality under the conditions of this study.

Keywords: cocoa seedling, guano, organic fertilizer, seedling quality, swiftlet manure.

Abstrak. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian pupuk padat kotoran walet (guano) terhadap pertumbuhan dan kualitas bibit kakao (Theobroma cacao L.) di polybag. Penelitian dilaksanakan di Kebun Percobaan Fakultas Pertanian Universitas Batanghari, Jambi, pada September 2025 sampai Februari 2026. Rancangan yang digunakan adalah Rancangan Acak Lengkap dengan lima taraf dosis pupuk padat kotoran walet, yaitu 0, 75, 100, 125, dan 150 g per 4 kg media tanam. Setiap perlakuan diulang tiga kali. Parameter yang diamati meliputi tinggi tanaman, diameter batang, berat kering akar, berat kering tajuk, kadar air media, luas daun total, dan Indeks Kualitas Bibit (IK). Data dianalisis menggunakan analisis ragam dan dilanjutkan dengan uji DNMRT taraf 5%. Perlakuan 150 g/polybag menghasilkan nilai numerik tertinggi pada tinggi tanaman (57,31 cm), diameter batang (10,47 mm), berat kering akar (16,40 g), berat kering tajuk (79,91 g), luas daun total (199,26 cm²), dan IK (9,31). Nilai IK pada dosis 150 g/polybag tidak berbeda nyata dengan dosis 125 g/polybag (8,66). Kadar air media meningkat secara numerik seiring peningkatan dosis, tetapi seluruh perlakuan berada pada kelompok yang sama pada uji lanjut. Secara umum, dosis 125–150 g/polybag memberikan respons pertumbuhan dan kualitas bibit kakao yang paling baik pada kondisi penelitian ini.

Kata Kunci: bibit kakao, guano, indeks kualitas bibit, pupuk organik, kotoran walet.