

**ANALISIS POTENSI FESES DAN PUPUK ORGANIK KAMBING
PERANAKAN ETAWA UNTUK BUDIDAYA KAKAO DI KELOMPOK
TEKNAK NGUDI MAKMUR**

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INTISARI

Feses kambing berpotensi besar sebagai bahan dasar pupuk organik karena kandungan unsur haranya yang tinggi, terutama nitrogen (N), fosfor (P), dan kalium (K), yang penting bagi pertumbuhan tanaman. Penelitian ini bertujuan untuk menganalisis potensi feses kambing Peranakan Etawa dan pupuk organik hasil olahannya terhadap budidaya kakao (*Theobroma cacao* L.). Sampel yang diuji berupa feses segar dan pupuk organik hasil fermentasi sebanyak tiga ulangan yang dikumpulkan dari Kelompok Ternak Ngudi Makmur di Dusun Jonggrangan, Desa Jatimulyo, Kulon Progo. Parameter yang dianalisis meliputi kadar nitrogen total (N), fosfor (P), dan kalium (K), menggunakan metode Kjeldahl, Spektrofotometri UV-Vis, dan *Atomic Absorption Spectrophotometry* (AAS). Hasil pengujian menunjukkan bahwa feses kambing PE memiliki kadar N dan K yang secara signifikan lebih tinggi dibandingkan pupuk organik hasil olahannya ($P < 0,05$), sementara kadar P tidak berbeda nyata. Feses kambing PE dinilai memiliki potensi yang tinggi sebagai bahan pupuk organik yang efektif, ekonomis, dan ramah lingkungan untuk meningkatkan kesuburan tanah dalam budidaya tanaman kakao, namun pupuk hasil fermentasi lebih direkomendasikan karena dapat mengurangi risiko kontaminasi dan meningkatkan kestabilan nutrisi.

Kata Kunci : feses kambing, kakao, pupuk organik, unsur hara

POTENTIAL ANALYSIS OF GOAT MANURE AND PROCESSED ORGANIC FERTILIZER FROM ETAWA CROSSBREED GOATS FOR COCOA CULTIVATION IN NGUDI MAKMUR LIVESTOCK GROUP

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ABSTRACT

Goat manure has great potential as a raw material for organic fertilizer due to its high nutrient content, especially nitrogen (N), phosphorus (P), and potassium (K), which are important for plant growth. This study aims to analyze the potential of Peranakan Etawa goat manure and processed organic fertilizer for cocoa cultivation (*Theobroma cacao* L.). The samples were fresh manure and fermented organic fertilizer, each with three replicates, that collected from the Ngudi Makmur Livestock Group in Jonggrangan Hamlet, Jatimulyo Village, Kulon Progo. The parameters analyzed included total nitrogen (N), phosphorus (P), and potassium (K) levels, using the Kjeldahl method, UV-Vis Spectrophotometry, and *Atomic Absorption Spectrophotometry* (AAS). The results showed that PE goat feces had significantly higher N and K levels than processed organic fertilizer ($P < 0.05$), while P levels were not significantly different. PE goat manure was assessed to have high potential as an effective, economical, and environmentally friendly organic fertilizer to improve soil fertility in cocoa cultivation, but fermented fertilizer is more recommended because it can reduce the risk of contamination and improve nutrient stability.

Keywords : goat feces, cocoa, organic fertilizer, nutrients