

**EKSPLORASI DAN KARAKTERISASI MORFOLOGI  
TANAMAN KAKAO (*Theobroma cacao* L.) RAKYAT DI  
KECAMATAN PAYAKUMBUH KABUPATEN LIMA PULUH  
KOTA**

**SKRIPSI**

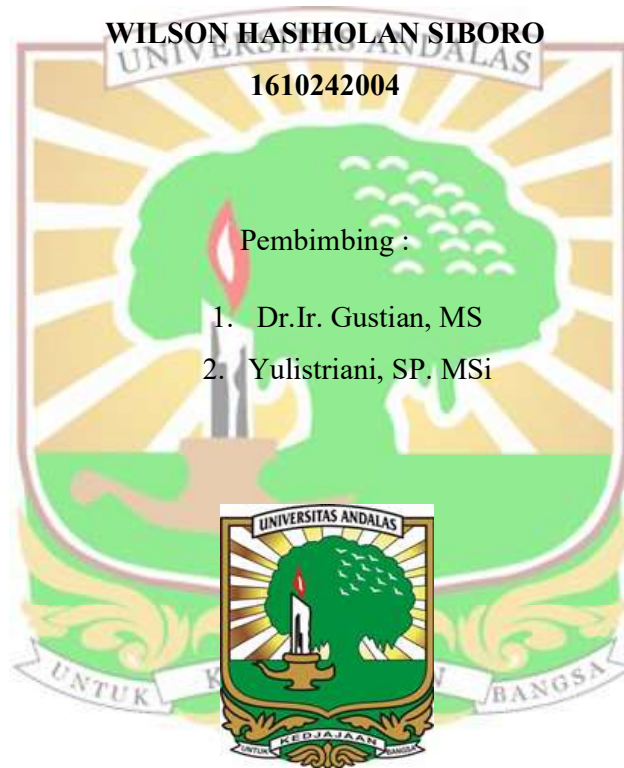
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**KARAKTERISASI MORFOLOGI TANAMAN KAKAO  
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**ABSTRAK**

Budidaya tanaman kakao di Kecamatan Payakumbuh menggunakan bibit yang benihnya ditanam sendiri oleh para petani dan benih tersebut umumnya belum diketahui identitasnya. Penelitian ini bertujuan untuk menentukan karakter morfologi masing-masing tanaman kakao, serta tingkat kemiripan maupun keragaman tanaman kakao yang berpotensi sebagai informasi untuk pengembangan tanaman kakao unggul, dan sebagai informasi untuk mendapatkan calon tetua dalam perakitan tanaman kakao unggul yang berasal dari Kecamatan Payakumbuh, Kabupaten Lima Puluh Kota. Penelitian ini berupa survei dengan metode purposive sampling dengan melakukan wawancara kepada petani kakao, pengambilan data dilapangan dengan mengamati bagian morfologi dari tanaman sampel. Analisis data dilakukan dengan program NTSYS Ver 2.02 untuk menganalisis kemiripan tanaman kakao di Kecamatan Payakumbuh Kabupaten Lima Puluh Kota. Tanaman kakao yang dijadikan sampel terdapat pada Nagari Piobang 3 varian, Nagari Sungai Beringin 1 varian, Nagari Koto Baru Simalanggang 1 varian, dan Ngari Koto Tengah Simalanggang 2 varian. Hasil analisis kemiripan fenotipik tanaman kakao di Kecamatan Payakumbuh memiliki nilai koefisien 18 – 67% dan nilai variabilitas 33 - 82%. Pada karakter kualitatif, variabilitas tanaman kakao didapatkan nilai 37- 79% dan karakter kuantitatif nilai keofesien berkisar antara 0 – 50 %. Dari hasil penelitian disarankan untuk melakukan penelitian lebih lanjut mengenai identifikasi dan karakterisasi fragmen DNA genomik kakao, dan evaluasi ketahanan masing-masing akasesi terhadap hama dan penyakit karena evaluasi merupakan kegiatan lanjutan dari karakterisasi dalam program pemilian.

Kata Kunci : Fenotip, Plasma Nutfah, Morfologi, Karakterisasi, dan Variabilitas

# MORPHOLOGICAL CHARACTERIZATION OF SMALLHOLDER CACAO (*Theobroma cacao* L.) PLANTATIO IN PAYAKUMBUH, LIMA PULUH KOTA DISTRICT

## ABSTRACT

Generally cultivation of cacao crops in Payakumbuh Subdistrict uses seeds that planted by farmers themselves. And the identity of these seeds is mostly unclear. The objectives of this study were to determine the morphological characteristics of each cacao plant, determine the level of similarity and diversity of cacao plants that potentially as initial information for the development of superior cacao plants, and as information to obtain prospective parents in the assembly of superior cacao crops from Payakumbuh Sub district, Lima Puluh Kota District. This research was a survey by purposive sampling method conducted interviews with cacao farmers, data collection in the field by observed the morphological part of the sample plants. Data analysis was carried out by the NTSYS Ver 2.02 program to analyze the similarity of cacao plants in Payakumbuh Sub district, Lima Puluh Kota District. The sampled cacao plants were found in Piobang Village i.e 3 variants, Sungai Beringin Village i.d 1 variant, Koto Baru Simalanggang Village i.e 1 variant, Koto Tengah Simalanggang Village i.d 2 variants. The results of the phenotypic similarity analysis of cacao plants in Payakumbuh Sub district a coefficient value was 18 - 67% and a coefficient of variability was 33 - 82%. In the qualitative character, the coefficient variability of the cacao plant was 37- 79% and for the quantitative character the value ranged from 0 - 50%. Based on the research results, it is suggested to carry out further research on the identification and characterization of cacao genomic DNA fragments, and evaluation of the resistance of each accession to pests and diseases because evaluation is a follow-up activity of characterization in plant breeding programs.

Keywords: Phenotype, Germplasm, Morphology, Characterization, and Variability