

**KARAKTERISASI MORFOLOGIS DAN AGRONOMIS
BERBAGAI AKSESI MARKISA (*Passiflora edulis f. edulis* Sims)
KOLEKSI DI KOTA PADANG**

SKRIPSI

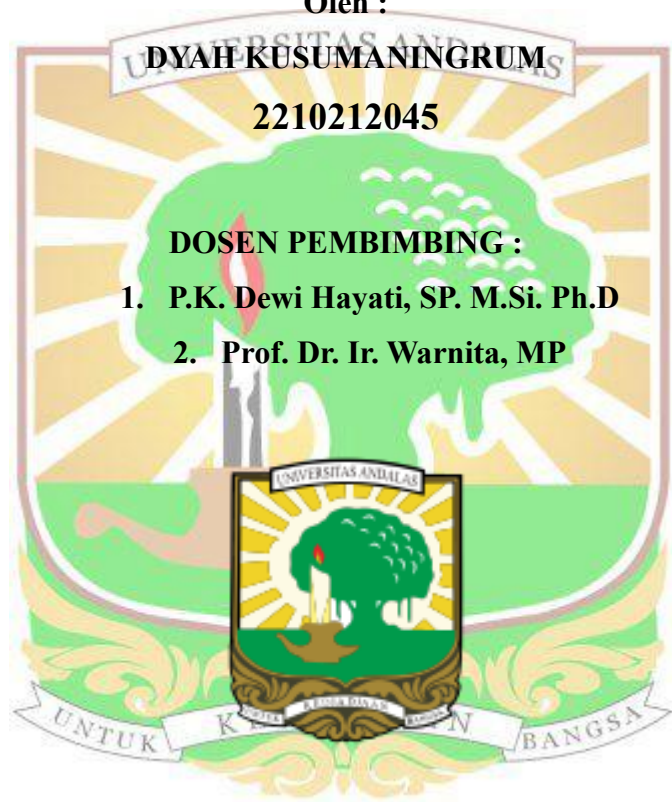
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KARAKTERISASI MORFOLOGIS DAN AGRONOMIS BERBAGAI AKSESI MARKISA (*Passiflora edulis* f. *edulis* Sims) KOLEKSI DI KOTA PADANG

ABSTRAK

Markisa (*Passiflora edulis* f. *edulis* Sims) memiliki keragaman karakter yang berpotensi dimanfaatkan dalam kegiatan pemuliaan tanaman. Informasi mengenai karakter morfologis dan agronomis diperlukan sebagai dasar pengelolaan plasma nutfah dan seleksi aksesii unggul. Penelitian ini bertujuan untuk mendeskripsikan karakteristik morfologis dan agronomis berbagai aksesii markisa, mendeskripsikan aksesii yang memiliki kualitas dan produksi buah tinggi, serta mengetahui hubungan antar karakter dan variabilitas fenotipik. Penelitian dilaksanakan pada bulan April sampai Juli 2026 di UPT Kebun Percobaan Fakultas Pertanian Universitas Andalas dan Laboratorium Fisiologi Tanaman Fakultas Pertanian Universitas Andalas. Penelitian ini menggunakan metode survei dengan observasi pada 21 aksesii markisa koleksi yang berumur 4 tahun. Data kualitatif dianalisis secara deskriptif, sedangkan data kuantitatif dianalisis menggunakan nilai rata-rata, varians, standar deviasi, korelasi fenotipik, dan variabilitas fenotipik. Hasil penelitian menunjukkan adanya keragaman warna buah, bentuk buah, warna pulp, serta berbagai karakter produksi, dan kualitas buah pada berbagai aksesii markisa (*Passiflora edulis* f. *edulis* Sims) koleksi. Agri 26 merupakan aksesii dengan kombinasi produksi tinggi (10,045 kg bobot buah per tanaman, volume pulp sebesar 36 mL, dan *edible portion* sebesar 47,5 %), serta rasa buah yang manis (*total soluble solids* sebesar 19,2 °Brix), sehingga memiliki potensi sebagai plasma nutfah untuk pengembangan varietas unggul markisa dataran rendah. Analisis korelasi fenotipik menunjukkan adanya hubungan yang erat dan positif antara karakter bobot buah per tanaman dengan jumlah bunga per tanaman ($r = 0.78$), volume pulp ($r = 0.60$), dan bobot buah ($r = 0.45$), serta panjang kelopak bunga ($r = 0.44$), sementara tingkat kemanisan tidak berasosiasi dengan karakter lainnya. Variabilitas yang luas ditemui pada karakter panjang sulur, panjang buah, diameter buah, bobot buah, *edible portion*, volume pulp, dan jumlah biji.

Kata kunci: korelasi fenotipik, kualitas buah, variabilitas fenotipik, varietas unggul

MORPHOLOGICAL AND AGRONOMIC CHARACTERIZATION OF VARIOUS PASSION FRUIT (*Passiflora edulis* f. *edulis* Sims) ACCESSIONS FROM A BREEDER'S COLLECTION IN PADANG CITY

ABSTRACT

Passion fruit (*Passiflora edulis* f. *edulis* Sims) exhibits a diversity of traits that can be utilized in plant breeding programs. Information regarding morphological and agronomic traits, relationships among traits, and phenotypic variability is necessary as a basis for germplasm management and the selection of superior accessions. This study aims to describe the morphological and agronomic characteristics of various passion fruit accessions, identify accessions with high fruit quality and yield, and determine the relationships among traits and phenotypic variability. The study was conducted from April to July 2026 at the Experimental Farm and the Plant Physiology Laboratory of the Faculty of Agriculture, Andalas University. The study employed a survey method with observations conducted on 21 four-year-old passion fruit accessions from the collection. Qualitative data were analyzed descriptively, while quantitative data were analyzed using mean values, variance, standard deviation, phenotypic correlation, and phenotypic variability. The results showed diversity in fruit color, fruit shape, and pulp color, as well as in various production traits and fruit quality among passion fruit (*Passiflora edulis* f. *edulis* Sims) accessions in the collection. Agri 26 is an accession with a high production combination (10.045 kg of fruit weight per plant, a pulp volume of 36 mL, and an edible portion of 47.5%), as well as a sweet fruit flavor (total soluble solids of 19.2 °Brix), thus having the potential as genetic material for the development of superior lowland passion fruit varieties. Phenotypic correlation analysis revealed strong and positive associations between fruit weight per plant and the number of flowers per plant ($r = 0.78$), pulp volume ($r = 0.60$), fruit weight ($r = 0.45$), and sepal length ($r = 0.44$). In contrast, fruit sweetness was not associated with the other traits. Wide variability was observed in the traits of vine length, fruit length, fruit diameter, fruit weight, edible portion, pulp volume, and number of seeds.

Keywords: phenotypic correlation, fruit quality, phenotypic variability, superior varieties