

INTISARI

Hoya (Famili Apocynaceae) merupakan tanaman hias tropis yang dikenal karena keindahan bentuk bunga dan daun yang khas, serta berpotensi sebagai sumber senyawa bioaktif. Penelitian ini bertujuan untuk mengidentifikasi dan mengevaluasi keragaman 32 aksesori *Hoya spp.* berdasarkan karakter morfologi dan kandungan gugus fungsi senyawa hasil analisis Fourier Transform Infrared (FTIR). Karakterisasi morfologi dilakukan pada bagian batang, daun, dan bunga dengan pendekatan kualitatif dan kuantitatif. Ekstrak daun diuji menggunakan metode ATR-FTIR untuk mendeteksi gugus fungsi kimia utama. Data dianalisis menggunakan pendekatan multivariat seperti *Principal Component Analysis* (PCA), biplot, dan analisis kluster untuk mengetahui pola keragaman dan hubungan kekerabatan antar aksesori. Hasil penelitian menunjukkan adanya keragaman morfologi yang tinggi, terutama pada bentuk dan warna daun serta struktur bunga. Sembilan gugus fungsi dominan seperti –OH, C=O, C=C, dan C–H berhasil diidentifikasi melalui FTIR. Hasil klustering menunjukkan bahwa kesamaan morfologi tidak selalu mencerminkan kesamaan kimiawi. Pendekatan integratif ini dapat memperjelas perbedaan antar spesies dan aksesori berdasarkan ciri khas penanda morfologi dan gugus fungsi senyawa untuk mempermudah identifikasi antar aksesori. Serta mendukung konservasi dan pemuliaan berbasis karakter morfologi dan kimia.

Kata kunci: *Hoya*, morfologi, FTIR, gugus fungsi, keragaman.

ABSTRACT

Hoya (Family Apocynaceae) is a tropical ornamental plant known for its unique leaf and flower morphology, and its potential as a source of bioactive compounds. This study aimed to identify and evaluate the diversity of 32 accessions of *Hoya* spp. based on morphological characteristics and functional group composition using Fourier Transform Infrared (FTIR) spectroscopy. Morphological characterization was conducted on stems, leaves, and flowers using both qualitative and quantitative approaches. Leaf extracts were analyzed using the ATR-FTIR method to identify major chemical functional groups. Data were analyzed through multivariate approaches including Principal Component Analysis (PCA), biplot, and cluster analysis to observe variation patterns and phylogenetic relationships among accessions. The results revealed high morphological diversity, particularly in leaf shape and flower structure. Nine dominant functional groups, including –OH, C=O, C=C, and C–H, were successfully identified through FTIR spectra. Cluster analysis indicated that morphological similarity did not always align with chemical similarity. This integrative approach can clarify differences between species and accessions based on the characteristics of morphological markers and functional groups of compounds, facilitating identification between accessions. It also supports conservation and breeding based on morphological and chemical traits.

Keywords: *Hoya*, morphology, FTIR, functional group, diversity.