

Intisari

Lasiodiplodia theobromae merupakan jamur patogen yang menyebabkan penyakit diplodia pada berbagai tanaman berkayu, termasuk jeruk. Penyakit ini ditandai dengan keluarnya blendok (gum), nekrosis batang, hingga kematian tanaman. Penelitian ini bertujuan untuk mengetahui keragaman morfologi *L. theobromae* dari tanaman jeruk di Daerah Istimewa Yogyakarta (DIY) serta validasinya secara molekuler. Sampel dikumpulkan dari delapan titik di empat kabupaten berbeda di DIY, mencakup berbagai varietas jeruk. Isolasi dilakukan dari batang bergejala, diikuti dengan pengamatan karakteristik morfologi makroskopis dan mikroskopis, serta identifikasi molekuler menggunakan primer spesifik Lt347-F/Lt347-R. Hasil penelitian menunjukkan bahwa seluruh isolat teramplifikasi pada 347 bp, mengonfirmasi identitas sebagai *L. theobromae*. Analisis dendogram menggunakan metode UPGMA berdasarkan kemiripan morfologi menunjukkan adanya tiga grup utama. Grup I terdiri dari isolat dengan koloni putih dan pigmen hitam tipis, konidia matang namun tanpa konidia muda. Grup II menunjukkan tekstur koloni *fluffy* dengan pembentukan konidia matang dan muda. Sementara itu, Grup III ditandai dengan koloni berwarna abu-abu berserat dan tidak membentuk konidia. Perbedaan morfologi antar isolat diduga dipengaruhi oleh faktor genetik, lingkungan asal, dan adaptasi lokal.

Kata kunci: diplodia, jeruk, *Lasiodiplodia theobromae*, morfologi, UPGMA

Lasiodiplodia theobromae is a pathogenic fungus responsible for diplodia disease in various woody plants, including citrus. This disease is characterized by gum exudation (blendok), stem necrosis, and eventual plant death. The aim of this study was to examine the morphological diversity of *L. theobromae* isolated from citrus plants in the Special Region of Yogyakarta (DIY), as well as to validate their identity through molecular analysis. Samples were collected from eight locations across four districts in DIY, covering various citrus varieties. Isolation was performed from symptomatic stems, followed by observations of macroscopic and microscopic morphological characteristics, and molecular identification using the specific primers Lt347-F/Lt347-R. The results showed that all isolates were successfully amplified at 347 bp, confirming their identity as *L. theobromae*. Cluster analysis using the UPGMA method based on morphological similarities revealed three major groups. Group I consisted of isolates with white colonies and thin black pigmentation, producing mature conidia but lacking immature conidia. Group II exhibited fluffy colony texture with the presence of both mature and immature conidia. Meanwhile, Group III was characterized by fibrous grayish colonies with no conidia formation. The observed morphological differences among isolates are presumed to be influenced by genetic factors, environmental origins, and local adaptation.

Keywords: diplodia, citrus, *Lasiodiplodia theobromae*, morphology, UPGMA