MORFOLOGI *Colletotrichum* sp. PADA *POST HARVEST* BUAH *Solanaceae* (CABAI HABANERO, PAPRIKA, TERUNG BELANDA, TERUNG UNGU, DAN TOMAT)

Oleh: Nadhilah Hidayati

Dibimbing oleh: Chimayatus Solichah

ABSTRAK

Antraknosa yang disebabkan *Colletotrichum* sp. merupakan penyakit pascapanen penting pada buah Solanaceae. Penelitian ini bertujuan mengidentifikasi gejala, karakteristik morfologi, dan hubungan kekerabatan *Colletotrichum* sp. pada lima jenis buah tersebut. Isolasi dari buah bergejala di Pasar Induk Wonosobo, dimurnikan pada PDA, diikuti karakterisasi makroskopis, mikroskopis, dan analisis kekerabatan menggunakan UPGMA. Hasil identifikasi gejala menunjukkan lesi cekung berwarna hitam hingga cokelat dengan massa spora putih. Karakterisasi morfologi mengungkap keragaman warna koloni, tekstur (cottony, velvety), laju pertumbuhan (0,48–0,97 cm/hari), serta bentuk dan ukuran konidia (silindris; 4,0–29,2 x 1,4–6,9 µm). Analisis kekerabatan (UPGMA) membentuk dua klaster utama. Isolat dari terung belanda dan terung ungu memiliki kemiripan tertinggi (80%), sementara isolat cabai habanero menempati posisi terpisah dengan kemiripan terendah (33%) karena karakter morfologi khas. Disimpulkan bahwa keragaman morfologi *Colletotrichum* sp., terutama warna koloni dan tekstur, secara langsung menentukan pola hubungan kekerabatan antar isolat dari buah Solanaceae pascapanen.

Kata kunci: *Colletotrichum, antraknosa, karakterisasi morfologi, UPGMA, Solanaceae*

MORPHOLOGY OF *Colletotrichum* sp. ON *POST HARVEST Solanaceae* FRUITS (HABANERO PEPPER, BELL PEPPER, TAMARILLO, PURPLE EGGPLANT, AND TOMATO)

Written by: Nadhilah Hidayati

Supervised by: Chimayatus Solichah

ABSTRACT

Anthracnose caused by *Colletotrichum* sp. is a major postharvest disease of Solanaceae fruits. This study aimed to identify the symptoms, morphological characteristics, and phylogenetic relationships of *Colletotrichum* sp. from five postharvest fruit types. Isolation from symptomatic samples from Pasar Induk Wonosobo was followed by purification on PDA, macroscopic/microscopic characterization, and UPGMA analysis. Symptom identification revealed sunken black-to-brown lesions with white spore masses. Morphological characterization showed diverse colony color/texture (cottony, velvety), growth rates (0.48–0.97 cm/day), and conidial dimensions (cylindrical; 4.0–29.2 × 1.4–6.9 µm). Phylogenetic analysis (UPGMA) formed two main clusters. Tamarillo and purple eggplant isolates shared the highest similarity (80%), while the habanero pepper isolate was distinct (33% similarity) due to unique red reverse colony color and cottony texture. It is concluded that morphological diversity in *Colletotrichum* sp., particularly colony color and texture, directly determines the phylogenetic relationship patterns among isolates from postharvest Solanaceae fruits.

Keywords: *Colletotrichum, anthracnose, morphological characterization, UPGMA, Solanaceae.*