Morphological and Growth Variations of Colletotrichum Isolates

*associated with Anthracnose Disease of Banana*

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Abstract

Banana (Musa spp.) is one of the most important fruit crops grown in tropical and subtropical regions of the world having a great socio-economic significance. Banana anthracnose caused by Colletotrichum musae is considered as a major biotic threat of banana at the global level. It deteriorates the quality and nutritive value of the fruits and renders them unfit for marketing and consumption. C. musae Infection on the banana usually starts during the development of the fruit but remains quiescent until the fruit ripens; symptoms often manifest during storage and marketing (Prusky and Plumbley 1992). Many banana cultivars in Sri Lanka are susceptible for the diseases caused by Colletotrichum. It reproduces in asexual manner and generally the spores are colorless and oval shape. Differentiation between Colletotrichum species based on host range or host origin may not be reliable, as the fungus has a broad range of host plants. Thus Colletotrichum contains many morphologically similar taxa comprising, endophytic, saprobic, and plant pathogenic fungi. It is very important to have a thorough understanding about the disease and causal organism to find out the solutions to overcome the disease. Therefore, this study was focused to evaluate morphological variation of 16 isolates of Colletotrichum spp. collected from banana showing typical anthracnose symptoms from different areas in Sri Lanka. Findings obtained on morphological and growth variation and fungicide sensitivity will be helpful for the implementation of effective, healthy and economical control measures of the pathogen.