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Effect of substrates on the growth and sporulation of *C. gloeosporioides* isolated from papaya (*Carica papaya L.*)

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Anthracnose caused by *Colletotrichum gloeosporioides* (Penz.) Penz. and Sacc. is the most serious disease that affects the ripened fruit, which hamper the commercial production wherever papaya is grown. Despite magnitude of economic losses resulting from this pathogen, few efforts have been made in understanding the cultural and morphological studies of the fungus specially in relation to papaya. It is therefore, important to study the existence of diverse pathogenic populations within a specific area to expedite implementation of control strategies. In view of the above, current study was undertaken to investigate the effect of different solid and liquid media on the growth and sporulation of seven isolates of *Colletotrichum gloeosporioides* of papaya. Czapek's dox agar (CDA), Sabouraud's agar (SA) Malt extract agar (MEA), Dextrose asparagine agar (DAA), Potato dextrose agar (PDA), Richard's agar (RA), Coon's agar (CA), Fruit extract agar (FEA) and Petiole extract agar (PEA) were used as nine different solid media, for this study. The broth cultures of the above media without adding agar were used as the liquid media to study growth and sporulation of those isolates. Observations on the mycelial growth, weight of the mycelium and the extent of sporulation were recorded at 7 days after the inoculation. Growth of different isolates on different media was not similar according to the study. Both PDA and Richard's agar found to be the best solid and liquid media for most of the tested isolates of C*. gloeosporioides* for artificial culturing. The pathogen under study sporulated better on Richard's agar and Sabouraud's agar and Richard's broth and Sabouraud's broth, respectively. According to the study, for most experimental studies with *C. gloeosporioides*, Richard's medium (solid or liquid) could be useful.

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