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MORPHOLOGICAL AND GROWTH VARIATIONS OF COLLETOTRICHUM ISOLATES ASSOCIATED WITH ANTHRACNOSE DISEASE OF BANANA

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Anthracnose is a highly destructive post-harvest disease of banana caused by the fungal pathogen Colletotrichum musae. The present study was conducted to determine the growth and morphological variations among Colletotrichum spp. associated with anthracnose disease of banana. Sixteen Colletotrichum isolates, including C. musae which were isolated from a range of banana cultivars showing typical anthracnose symptoms and collected from different locations were used for the study. Colony characteristics, growth rate, spore dimensions and sensitivity to fungicides (in vitro) were used to determine morphological variations of the fungal isolates. Out of the sixteen Colletotrichum isolates, four isolates were identified as C. gleosporioides and another four were identified as C. acutatum based on colony and spore morphology. Colony growth rate was highly variable among the tested isolates of Colletotrichum and the highest growth rate was shown by C. musae. Recommended dosage of the fungicide Homai (Thiophanate-methyl 50% + Thiram 30% WP) completely inhibited the mycelial growth of all isolates tested in vitro. However, the recommended dosage of Daconil (Chlorothalonic 500g/L) did not completely control any of the isolates of Colletotrichum tested under in vitro conditions. The findings revealed that morphological and growth variations exist among the Colletotrichum isolates recovered from anthracnose developed-banana fruits.