DETERMINATION ANTIBACTERIAL ACTIVITY OF ACTINOMYCES ISOLATES ON COLLETOTRICHUM SP. CAUSING ANTHRACNOSE DISEASE ON CITRUS IN MEKONG DELTA

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Summary
The research was executed in the laboratory of Plant Protection Department, Can Tho University to screen Streptomyces spp. isolates able to high against Colletotrichum sp. causes anthracnose disease on citrus. Testing inhibiting ability mycelium growth of Colletotrichum sp. by 32 Streptomyces spp. isolates was evaluated on PDA media with 5 replications; result showed that three isolates possessed high antagonistic effect (i.e. CT16-HG, HB2-BL and LM6-HG) with high inhibition zone from 6.60 to 7.88 mm and antagonistic efficacy over 50% at 6 days after inoculation. Testing inhibiting ability sporulation of Colletotrichum sp. by 8 Streptomyces spp. isolates (LM6, LV5-DT, CT16-HG, MT10-ST, HB2-BL, MT4-ST, LV7-DT, TØ10-VL) was evaluated on PDA broth with 4 replications; result recored that HB2-BL isolate have the highest inhibition efficacy with the lowest log’s conidia concentration is 4.75, whereas, control is 6.95 at 11 days after shaking. Testing inhibiting ability conidia germination of Colletotrichum sp. by 8 Streptomyces spp. was executed with 4 replications; result indicated that LM6-HG isolate have the highest inhibition efficacy with the lowest rate’s conidia germination (3.35%) compared to control (96.76%) at 24 hours after treatment.

Key words: Actinomyces, anthracnose on citrus disease, conidia germination, inhibition, sporulation.