

**DETERMINATION OF ANTIBACTERIAL ACTIVITY OF
ACTINOMYCES ISOLATES ON *PHYTOPHTHORA* SP.
CAUSING LEAF BLIGHT DISEASE ON TARO**

**Tran Phuong Dinh, Nguyen Phu Dung, Le Minh Tuong
Summary**

The research was conducted in the laboratory of Plant Protection Department, Can Tho University to screen actinomyces isolates which able to control *Phytophthora colocasiae* fungus causes leaf blight disease on taro. The antagonistic ability against *P. colocasiae* fungus of 32 actinomyces isolates was determined with 5 replications. The results showed that 6 isolates LV.ĐT1, DH.TV5, DH.TV6, TG1, DT13 and LV.ĐT22 obtain higher reduce mycelia growth of *P. colocasiae* fungus with radii of inhibition zone of 20.6mm; 13.4mm; 11.4mm; 10.8mm; 12.7mm; 8.6mm, respectively and the antagonistic efficacy of 63.0%; 51.3%; 55.9%; 55,5%; 48.4%; và 41.8% respectively at 7 days after inoculation. The ability of inhibiting sporulation of *P. colocasiae* by Actinomyces isolates was checked with 4 replications. The results showed that TG1, DH.TV5 and LV.ĐT1 isolates have the highest inhibition effecicacy with the lowest conidia concentration reaching 4.27, 4.54 and 4.68 conidia/ml, respectively at 7 days after testing. In addition, cellulase activity assay was tested on CMC 1% medium. The results showed that, 2 actinomyces isolates TG1 and DH.TV5 have expressed the cellulolytic activity, with the cellulose lyses halo radius of 16.80 mm and 16.20 mm, respectively at 7 days after testing.

Keywords: *Actinomyces*, *cellulose*, *leaf blight on taro disease*, *Phytophthora sp.*