

# EVALUATION OF ANTAGONISTIC ABILITY OF ACTINOMYCES AGAINST *Fusarium oxysporum* CAUSING FUSARIUM WILT ON SWEET POTATO

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## Summary

The objective of this research was to investigate the actinomycetes able to antagonize with *Fusarium oxysporum* fungus causing Fusarium wilt disease on Sweet Potato. One hundred and twenty isolates were collected from sweet potato field in Binh Tan district, Vinh Long province. There are 28 of 120 isolates in total presented antagonistic activity against *F. oxysporum* and TTR-4 isolate showed higher stabler antagonistic ability with radiuses of inhibition zones is 7.40 mm and antagonistic efficacy of 64.20% respectively at 5 days after co-culture. The ability of inhibiting conidia germination of *F. oxyporum* by Actinomyces isolates was examined in laboratory condition with 4 replications. The resultes indicated that TTR-4 isolate have the highest inhibition effecicacy with the lowest rate's conidia germination from 6 hour to 24 hour after inoculation. On the other hand, the ability of inhibiting sporulation of *F. oxyporum* by Actinomyces isolates was checked in laboratory condition with 4 replications. The results showed that TTR-4 and TD-7 isolates have the highest inhibition effecicacy with the lowest conidia concentration reaches 70.00 and 78.70 conidia/ml, respectively at 7 days after testing.

**Keywords:** *Actinomyces*, *Fusarium oxysporum*, *Fusarium wilt disease on sweet potato*, *inhibiting sporulation*, *inhibiting conidia germination*.