CONTROLLING OF ROT ROOT DISEASE CAUSED BY *Fusarium solani* ON CITRUS

Le Minh Tuong, Dinh Cong Chanh, Nguyen Truong Son

**Summary**

The objective of present research was to investigate the ability of Actinomyces isolates in controlling rot root disease on Citrus caused by *Fusarium solani*. The ability of inhibiting conidia germination of *F. solani* by Actinomyces isolates was examined in laboratory condition with 5 replications. Obtained results show that LM25 and LM6 isolates had the highest inhibition efficacy with the lowest rate’s conidia germination of *F. solani* were 4.09% and 7.77% at 24 hour after inoculation, respectively. The biocontrol ability of 2 actinomycete isolates, LM25 and LM6 was tested in the greenhouse conditions. The results indicated that 2 isolates LM25 and LM6 which were applied twice (2 days before and 2 days after pathogen inoculation) gave the highest ability to control the disease through four criteria: low ratio of disease incidence (6.25% and 6.75%); low number of roots infested by the disease (4.2 và 6.2); low ratio of roots infected by the disease (6.00% and 7.00%) and high efficiency of disease reduction (81.40% and 8542%) at 40 days after treatment. On the other hand, 2 treatments of LM25-TS and LM6-TS showed the highest length of tree, the highest length of main root and the highest conidia concentration of Actinomyces, and these values were significantly different with those in the other treatments at 40 days after inoculation.

**Keywords:** Actinomycetes, *Fusarium solani*, inhibiting conidia germination, rot root disease.