

ISOLATING AND SCREENING BACTERIAL ENDOPHYTES AGAINST (*Fusarium oxysporum*) CAUSING ROOT-ROT DISEASE IN MORINDA OFFICINALIS

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Summary

Morinda officinalis is a high value commercial non-timber forest Products, the roots of *Morinda officinalis* with a price of 200,000-300,000 VND/kg. One hectare of *Morinda officinalis* with a density of 5000 trees/ha after 3 years yield about 40 tons of tubers/ha profit from 3 to 4 billion but the cost of planting this species is very high and the risk of roots disease *F. oxysporum* fungus is the main obstacle to the development of this species on a large scale. Applying chemical measures to control the diseases of Trionychid turtles is economically expensive, unsafe food hygiene and affecting the ecological environment. Studies of bacterial endophytes in *Morinda officinalis* clarify their role in resistance to fungal pathogens of *F. oxysporum*. The number of bacterial endophytes isolated from the plant parts is different. Twenty-six (26) strains of bacterial endophytes were isolated from the leaf, stem, and root of *Morinda officinalis*. There were 20 strains resistant to *F. oxysporum* in which 3 strains (MO2, MO9, MO16) very strong fungus resistance ring diameter of 20.7, 20.4, 21.8 mm resistance.

Keywords: *Morinda officinalis*, *Fusarium oxysporum*, bacterial endophytes, root-rot disease.