Occurrence of Ralstonia solanacearum race 2 biovar 1 associated with Moko disease of banana (Musa paradisiaca cv. Nipah) in Malaysia

ABSTRACT

During June 2011 to March 2012, Moko disease symptoms were observed in banana cv. Nipah in two Malaysian states. The primer pairs ISRso19F/ISRso19R were used for defined identification of Ralstonia solanacearum race 2 strain. PCR amplification of all isolates produced a 1900 amplicon and exhibited 93% phylogenetic similarity with reference strain (AF450275). Based on symptoms, biochemical tests, pathogenicity assay, molecular and phylogenetic studies, we concluded that the isolated bacterium was R. solanacearum race 2 biovar 1.

Keyword: ISRso19; Malaysia; Moko disease; Musa paradisiaca cv. Nipah; Ralstonia solanacearum race 2 biovar 1