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Rapid Method for Isolation of PCR Amplifiable Genomic DNA of *Ralstonia solanacearum* Infested in Potato Tubers

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ABSTRACT

The aim of the present study was to develop a very fast and simple genomic DNA isolation method for *Ralstonia solanacearum* which infest potato tubers. One hundred potato tubers were collected and ten composite samples were prepared having 10 tubers each. Four different DNA isolation methods were used for bacterial genomic DNA isolation present in tubers. PCR with *R. solanacearum* specific primers and pathogenicity tests were performed. Out of four methods two gave PCR amplifiable DNA. The simplest method was boiling the cell lysate for 5 min, vortexing for 2 min then extraction with phenol chloroform method. This method provides significant amount of DNA which is free from contaminants thus rendering the DNA amicable to PCR amplification. The developed method would be useful for quick and sensitive detection of this pathogen in seed potatoes and would be beneficial to stop the further spread of pathogen.

KEYWORDS

Ralstonia solanacearum; PCR; Detection; Potato; DNA

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