rep -PCR Pattern of the Strains of *Pectobacterium* Isolated From Potato Soft Rot and Black Leg Diseases in Hamedan Province

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Abstract

Bacteria belong to *Pectobacterium* genus cause important diseases on some plants especially potato. They are agents for economically crop losses in Hamedan province anuualy. From the main potato growing area in Hamedan province diseased potato samples showing soft rot and black leg disease symptoms were collected and bacterial strains were isolated on EMB medium. Pathogenicity of the isolated straind verified on potato seedlings and 27 strains for characterization of phenotypic features as representatives which were determined based on the standard bacteriological methods. Results indicated that tested strains were differenciable based on their phenotypic feautures which mainly identified as *Pectobacterium carotovorum* and few as *Pectobacterium atrosepticum*. Genomic fingerprinting of the representatives by rep-PCR using ERIC and Box primers were determined. Obtained DATA were analyzed by NTSYS V.2. 2 software and UPGMA cluster analysis using Jacard coefficient. Results showed that most of the tested strains are *P. carotovorum* and a few as *P. atrosepticum.* Rep-PCR patten analysis is a quick technique for detection and identification of *Pectobacterium* strains pathogenic on potato.

Keywords: *Pectobacterium carotovoru, Pectobacterium atrosepticum*, ERIC, BOX

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To look at the figures and tables, please refer to the Persian text (pages: 47-53= 47-53).

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