

Polymerase Chain Reaction Analysis and Random Amplified Polymorphic DNA of *Agrobacterium Tumefaciens*

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Abstract : Fifteen isolates of *Agrobacterium tumefaciens* were obtained from crown gall samples collected from six locations (Tripoli, Alzahra, Ain-Zara, Alzawia, Alazezia in Libya) from Grape (*Vitis vinifera* L.), Pear (*Pyrus communis* L.), Peach (*Prunus persica* L.) and Alexandria in Egypt from Guava (*Psidium guajava* L.) trees, Artichoke (*Cynara cardunculus* L.) and Sugar beet (*Beta vulgaris* L.). Total DNA was extracted from the eight isolates as well as the identification of six isolates used into Polymerase Chain Reaction (PCR) analysis and Random Amplified Polymorphic DNA (RAPD) technique were used. High similarity (55.5%) was observed among the eight *A. tumefaciens* isolates (Agro1, Agro2, Agro3, Agro4, Agro5, Agro6, Agro7, and Agro8). The PCR amplification products were resulting from the use of two specific primers (virD2A-virD2C). Analysis induction six isolates of *A. tumefaciens* obtained from different hosts. A visible band was specific to *A. tumefaciens* of (220 bp, 224 bp) and 338 bp produced with total DNA extracted from bacterial cells.

Keywords : *Agrobacterium tumefaciens*, crown gall, identification, molecular characterization, PCR, RAPD

Conference Title : ICAMPPT 2020 : International Conference on Agricultural Mechanization and Plant Production Technologies

Conference Location : Berlin, Germany

Conference Dates : July 23-24, 2020