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Genetic characterization of *Pepino mosaic virus* infecting Moroccan tomatoes

Amal Souiri^{1,2,3}, Mustapha Zemzami³, Hayat Laatiris³, Saaid Amzazi² and Moulay Mustapha Ennaji¹

¹University Hassan II of Casablanca, Morocco

²University of Mohammed V, Morocco

³Laboratory of Sanitary Control, Morocco

Over the past few years, *Pepino mosaic virus* (PepMV) has become an emerging pathogen that causes significant losses in tomato crops worldwide. Genetic composition of PepMV population in Morocco has not been determined yet. In this study, twelve PepMV isolated from Moroccan areas of tomato production were identified by serological and molecular tools and were characterized by nucleotide sequences analysis of a part of RNA-dependant RNA polymerase gene, triple gene block and coat protein gene. In spite of genetic diversity of PepMV isolates due to high mutation and recombination rate of RNA, the phylogenetic analysis based on comparison with the known genotypes showed that the Moroccan population of PepMV shares a very high sequence identity with CH2 strains. As well, Moroccan isolates reveals a specific single nucleotide polymorphisms that lead to distinct variants and for a subset of isolates, a possible recombination with EU genotypes. This study will contribute in the improvement of control strategies of PepMV disease and in the implementation of phytosanitary requirements for the exported tomato crops.

Biography

Amal Souiri is currently a PhD Student from the Faculty of Science, University Mohammed V in Morocco. She is a Young Researcher on Virology, Molecular Biology and Immunology. She has contributed in the development of monoclonal antibodies against *Pepino mosaic virus* infecting tomato crops in Morocco and the genetic characterization of Moroccan PepMV strains. She has published 3 papers in reputed journals and communicated its studies in many international congresses.

amal.souiri@hotmail.com

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